

Fig. 1

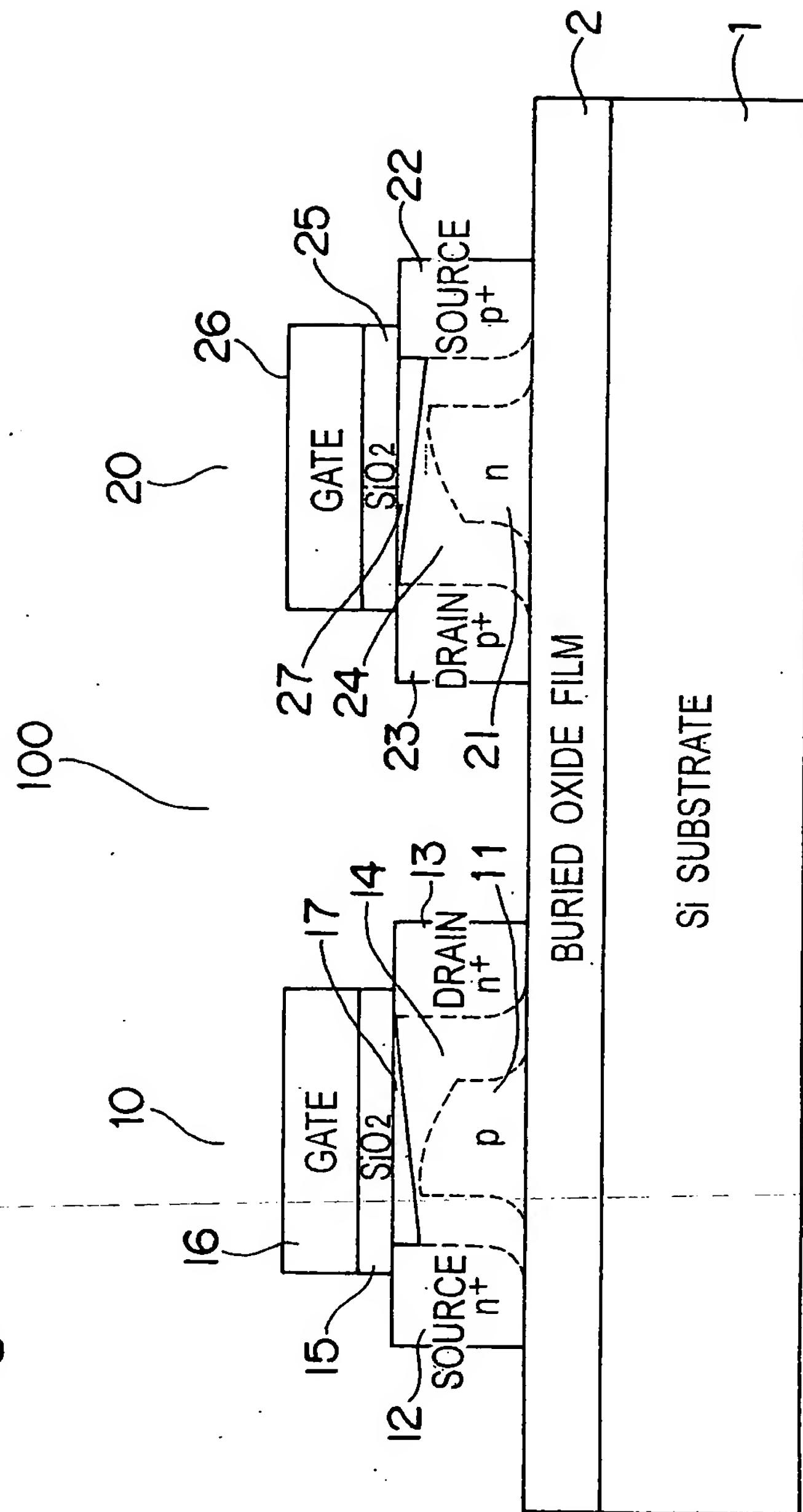


Fig.2

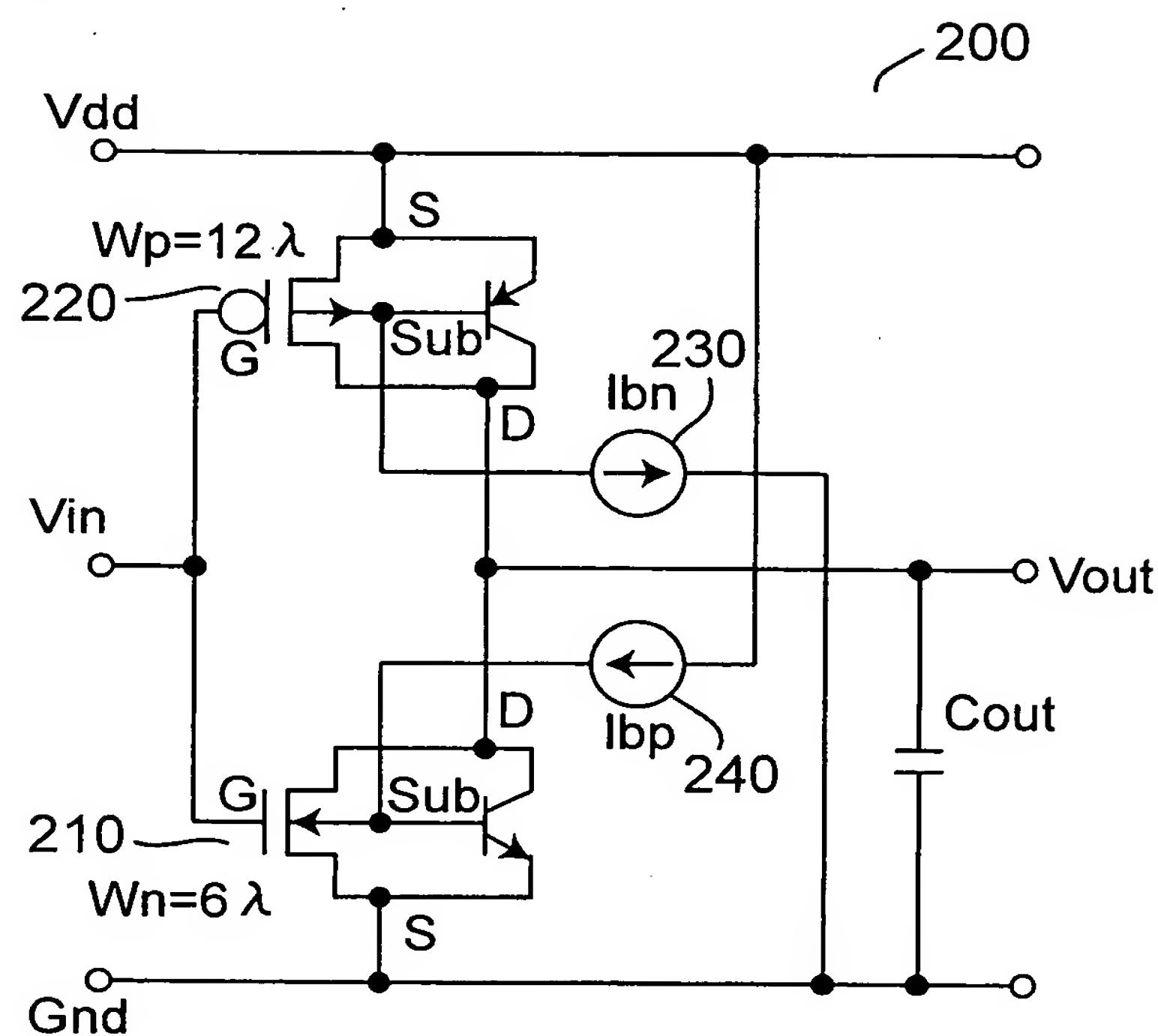


Fig.3

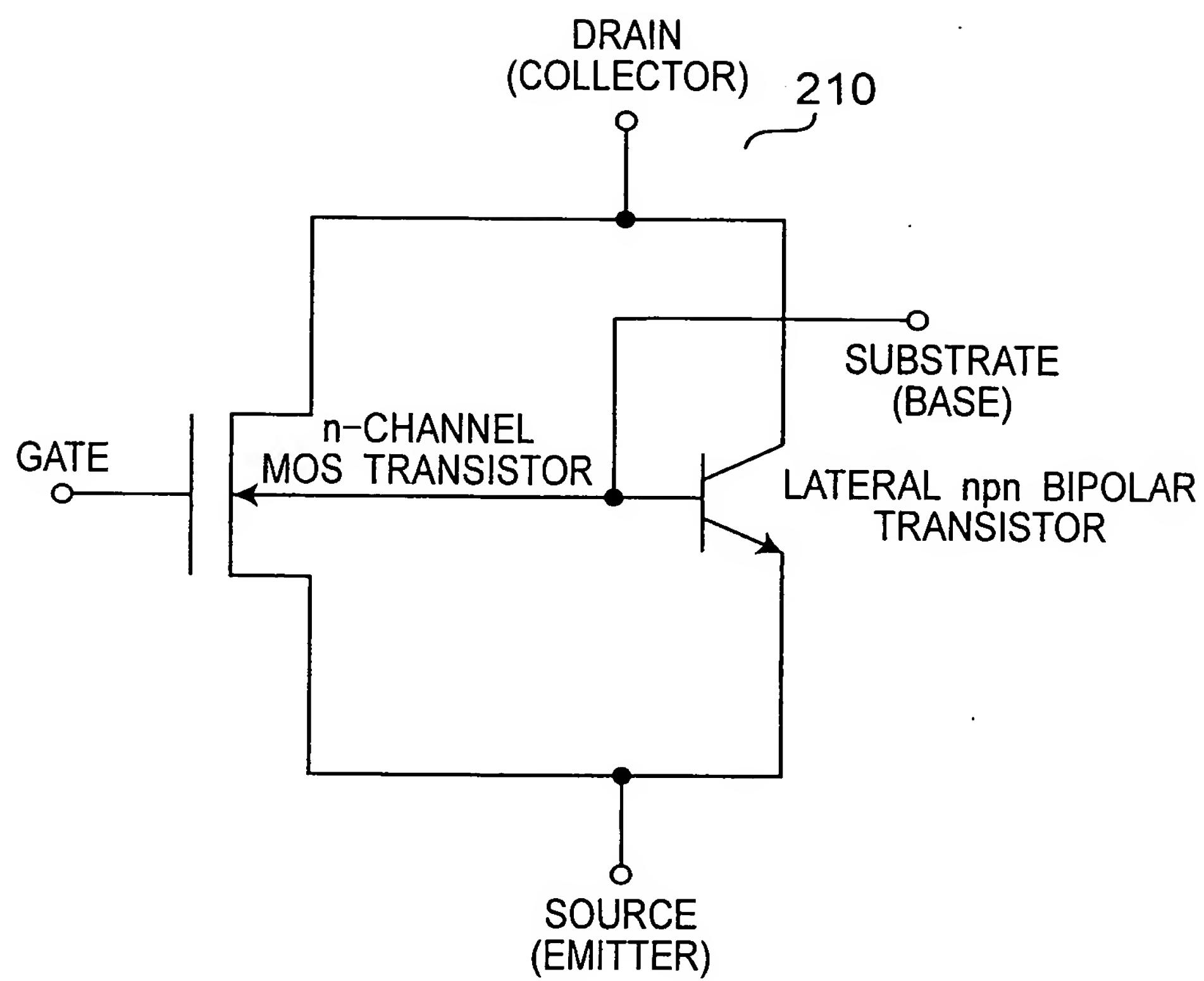


Fig. 4

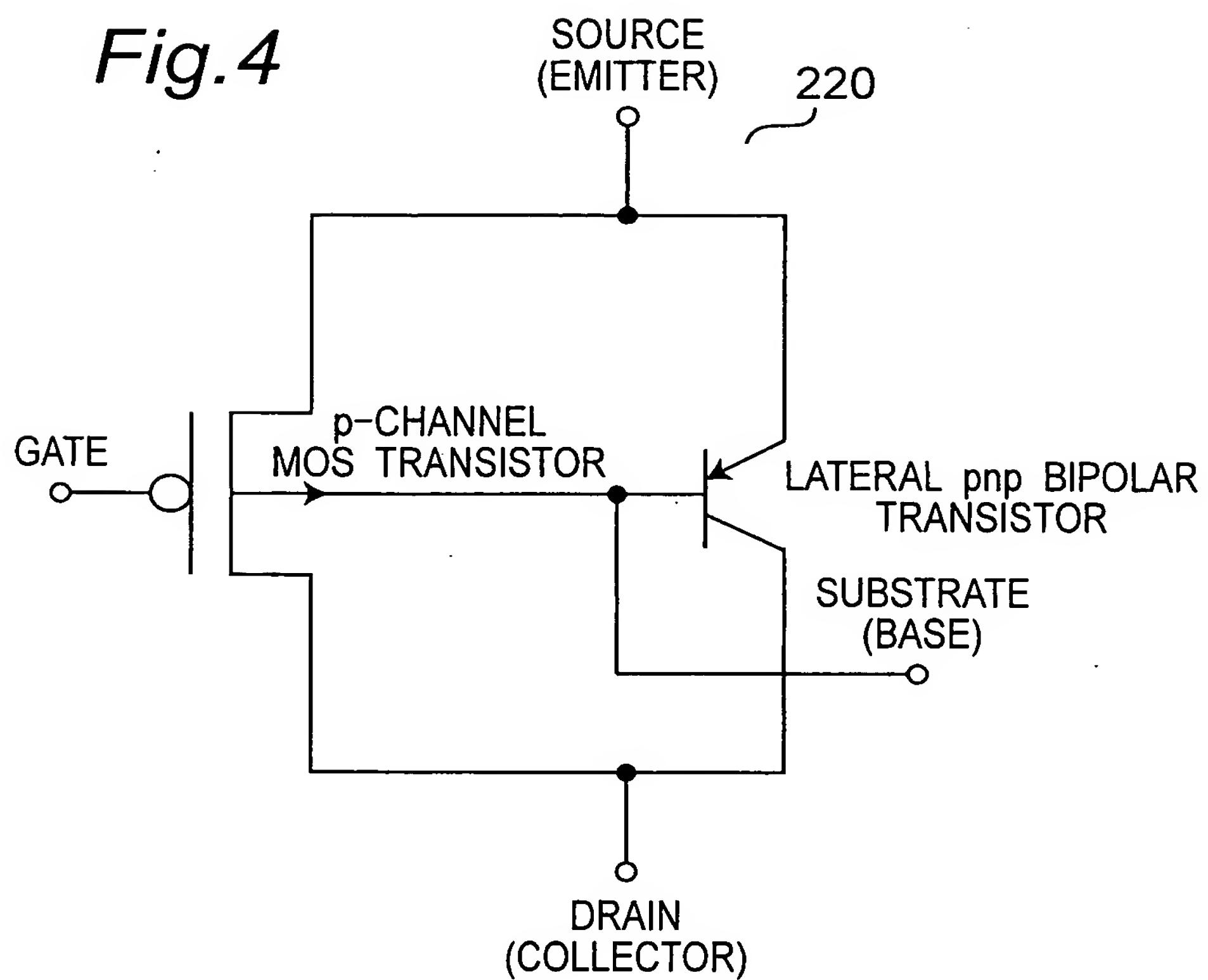


Fig.5

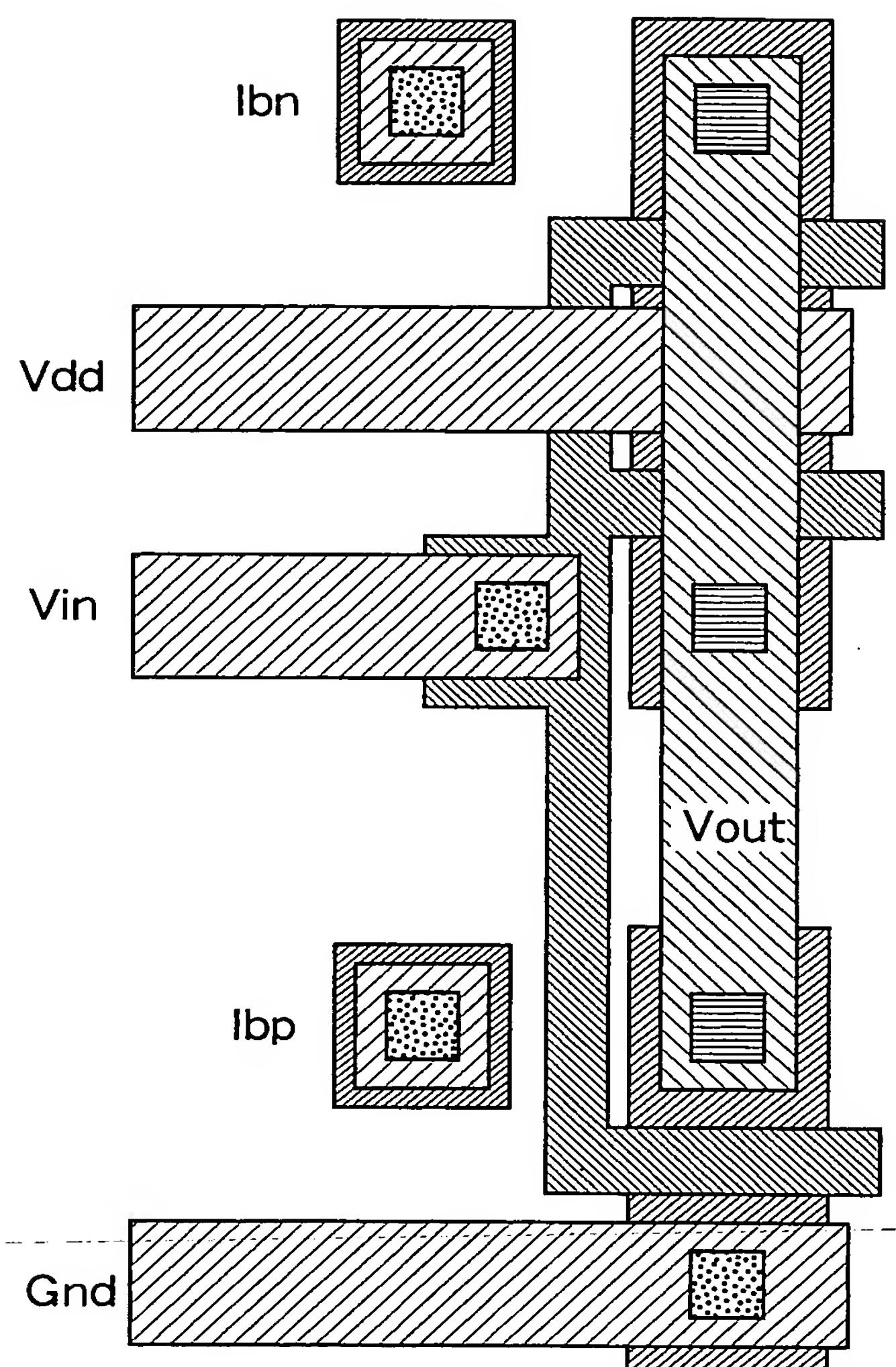


Fig.6

WAVEFORM OF INPUT VOLTAGE AND CURRENT PULSE

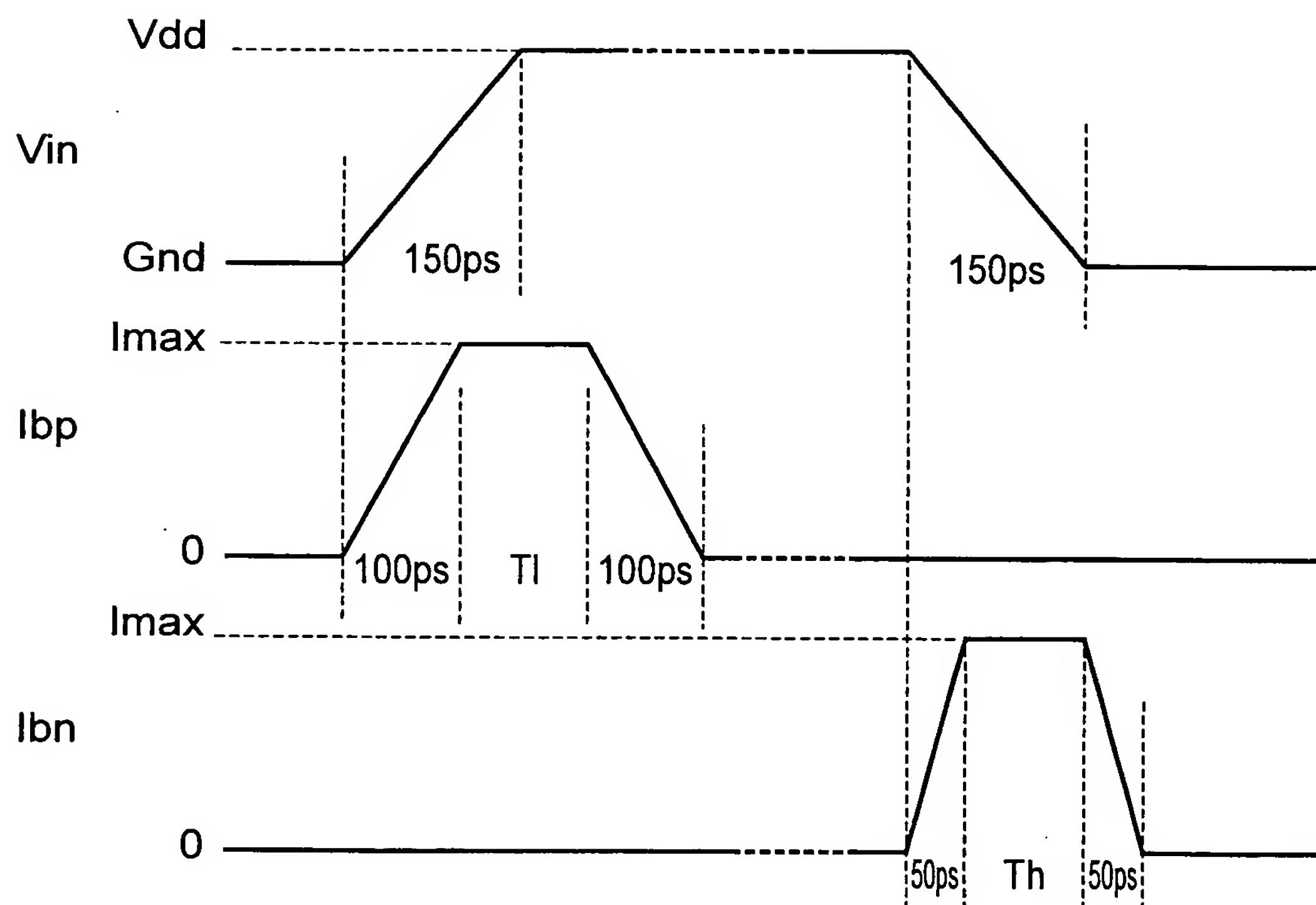


Fig. 7

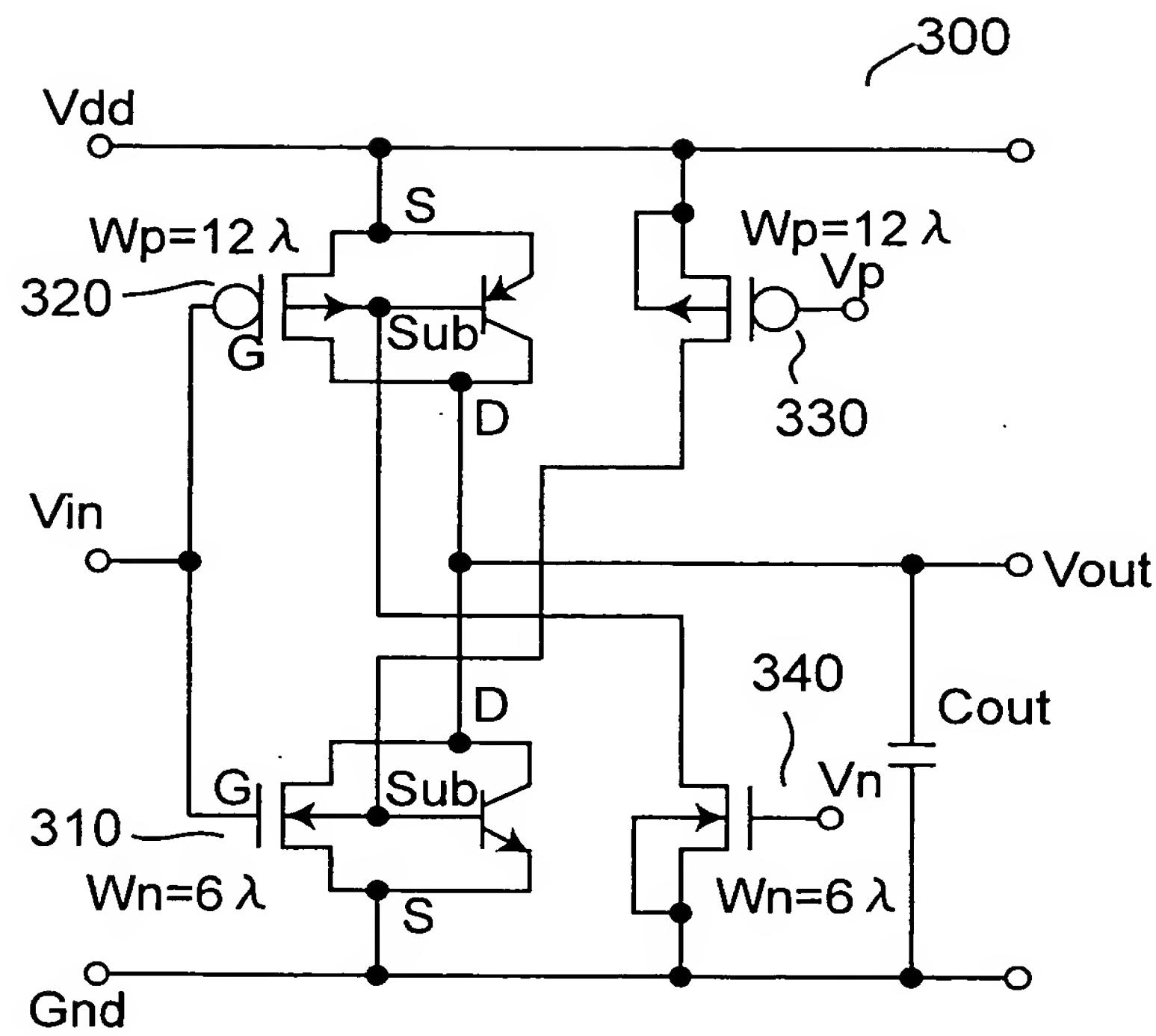


Fig. 8

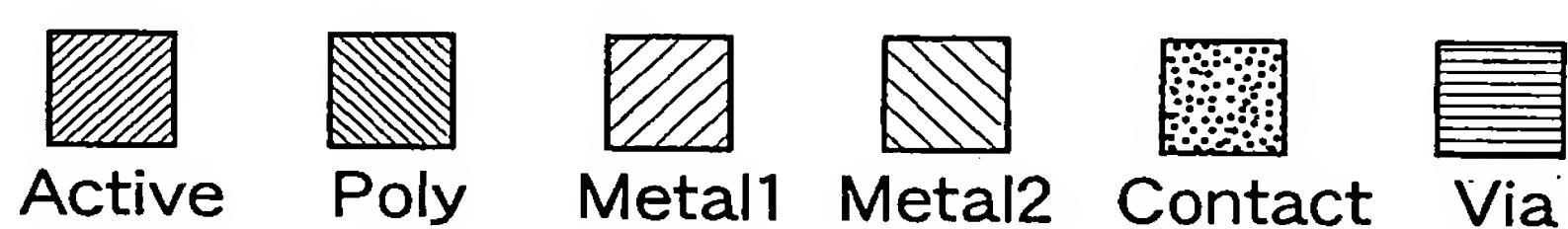
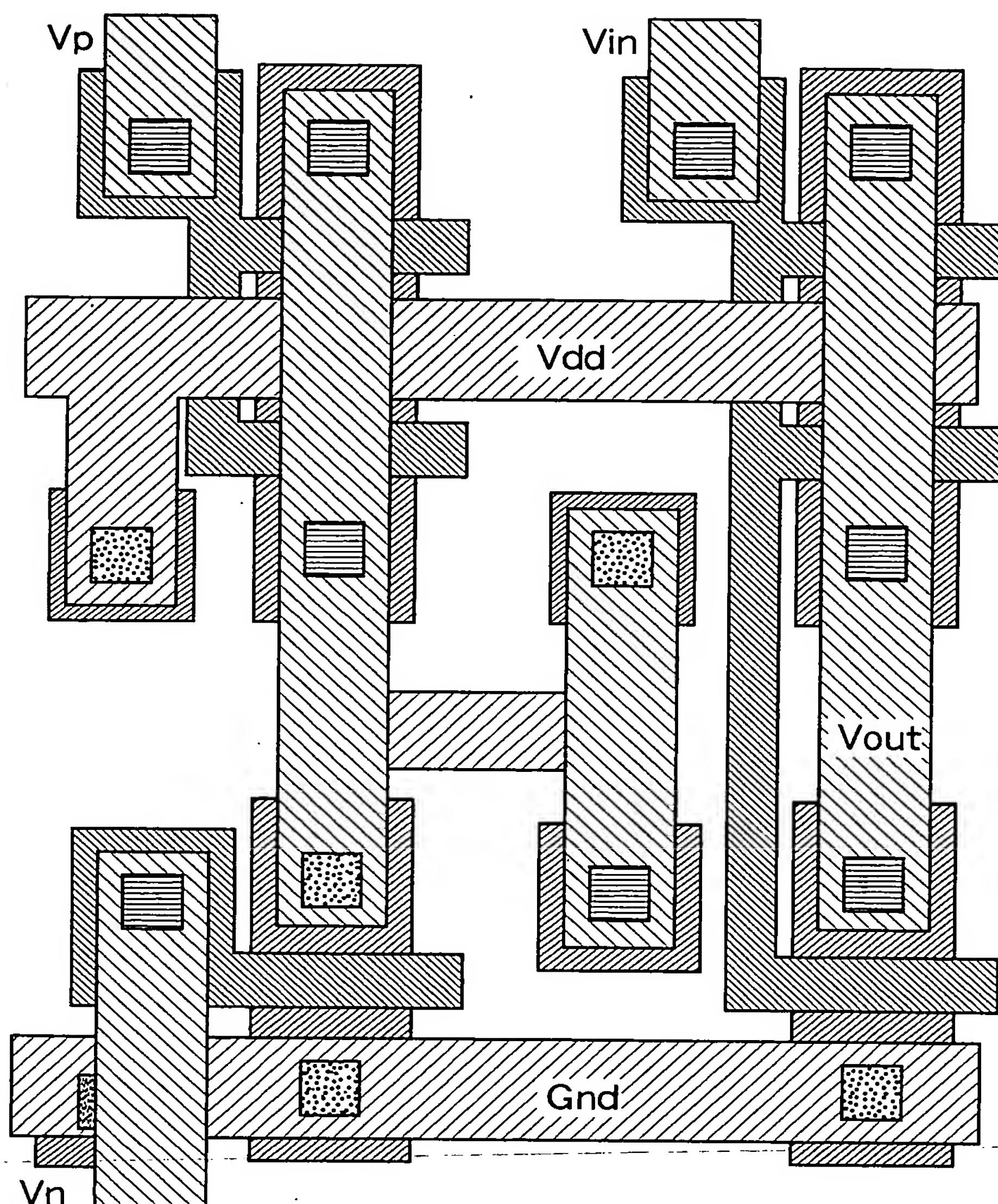


Fig.9

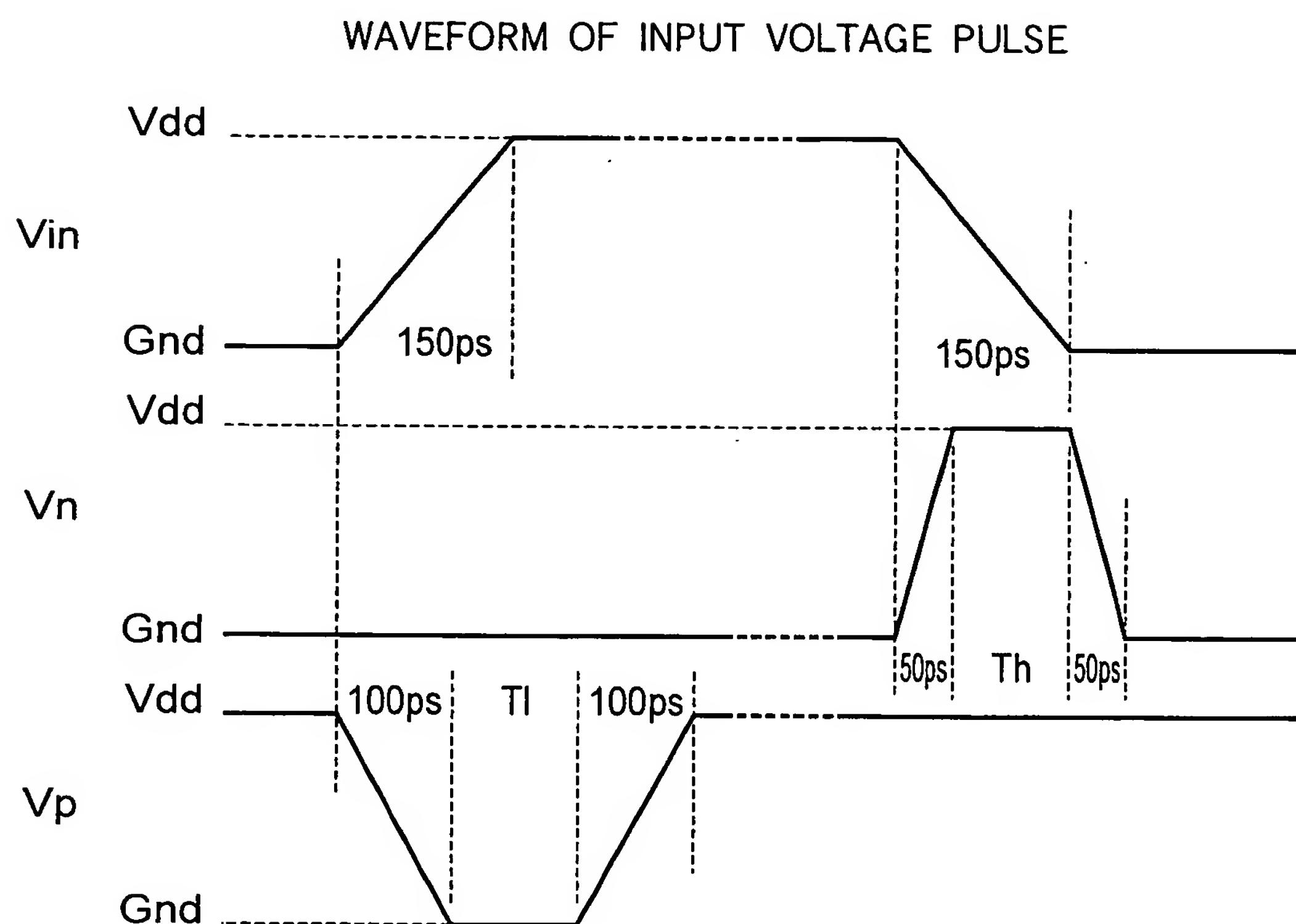


Fig. 10

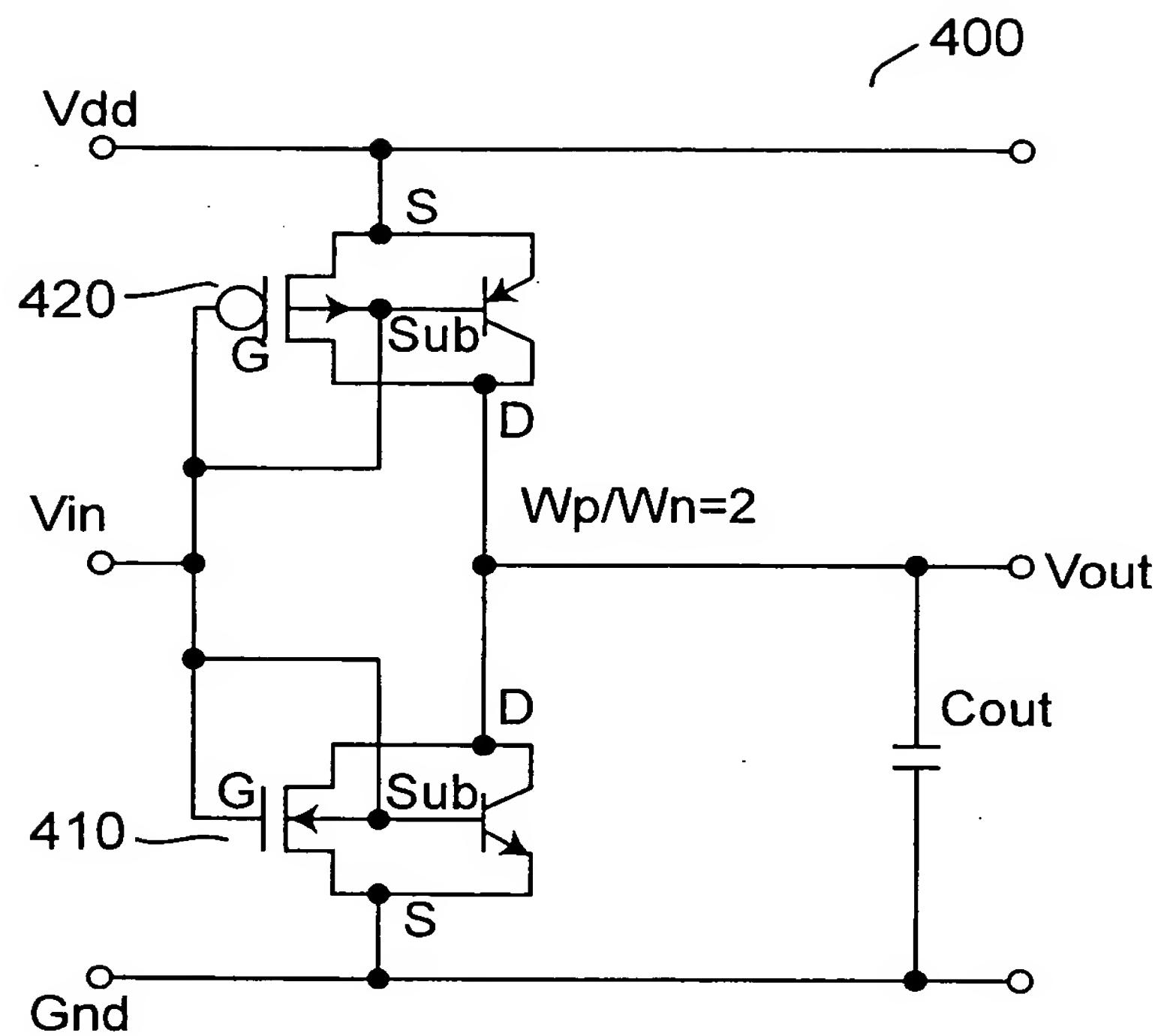


Fig. 11

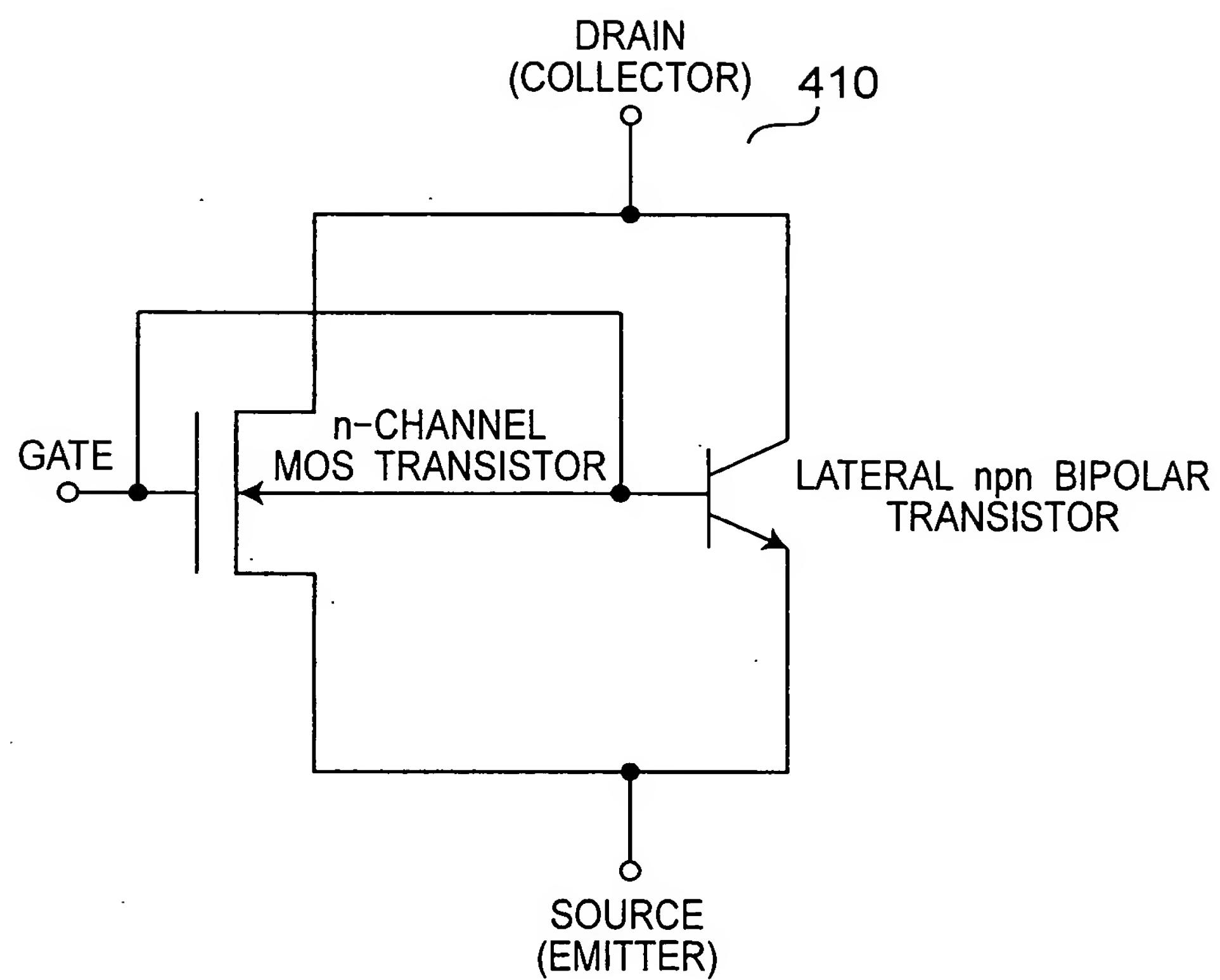


Fig. 12

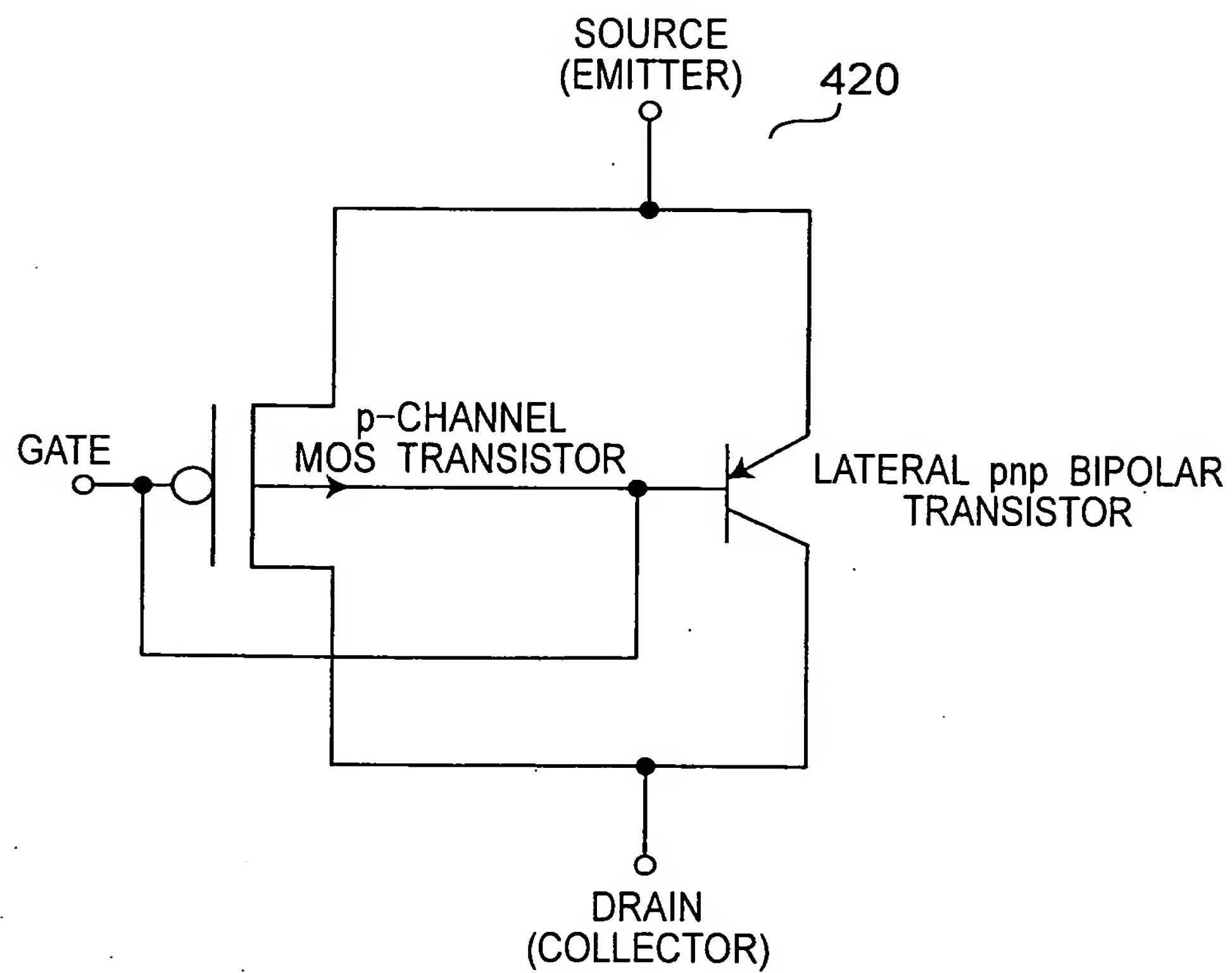
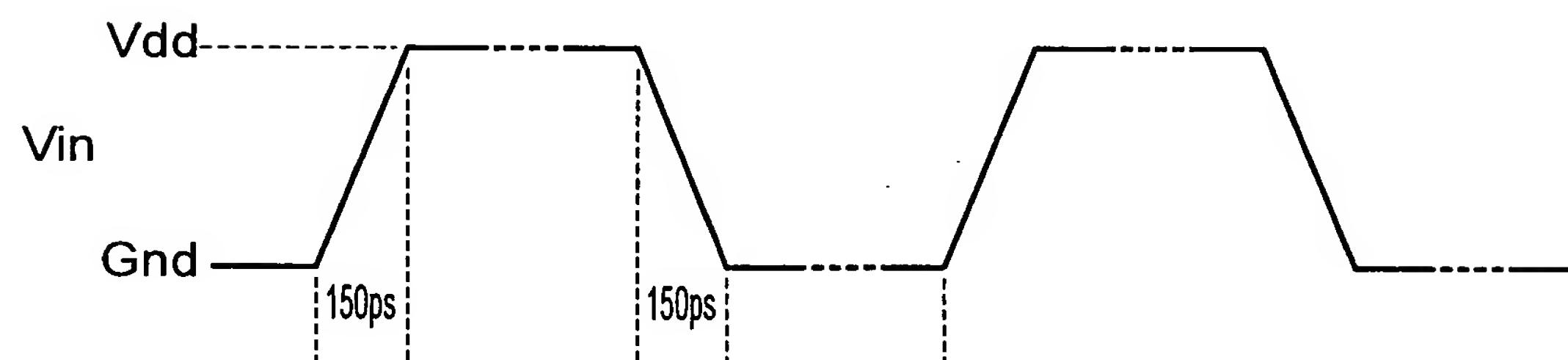


Fig. 13

WAVEFORM OF INPUT VOLTAGE PULSE



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Fig. 14

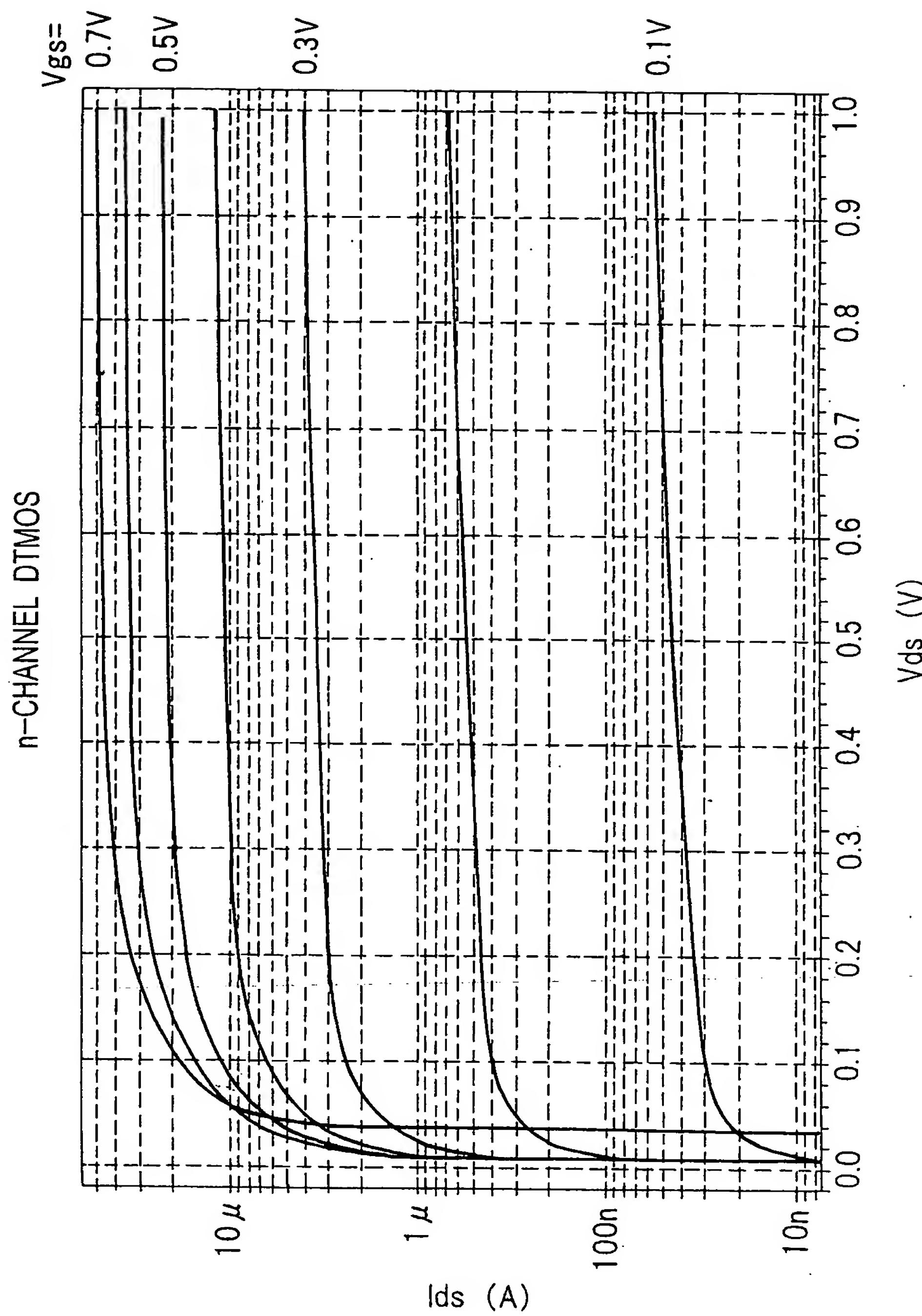


Fig. 15

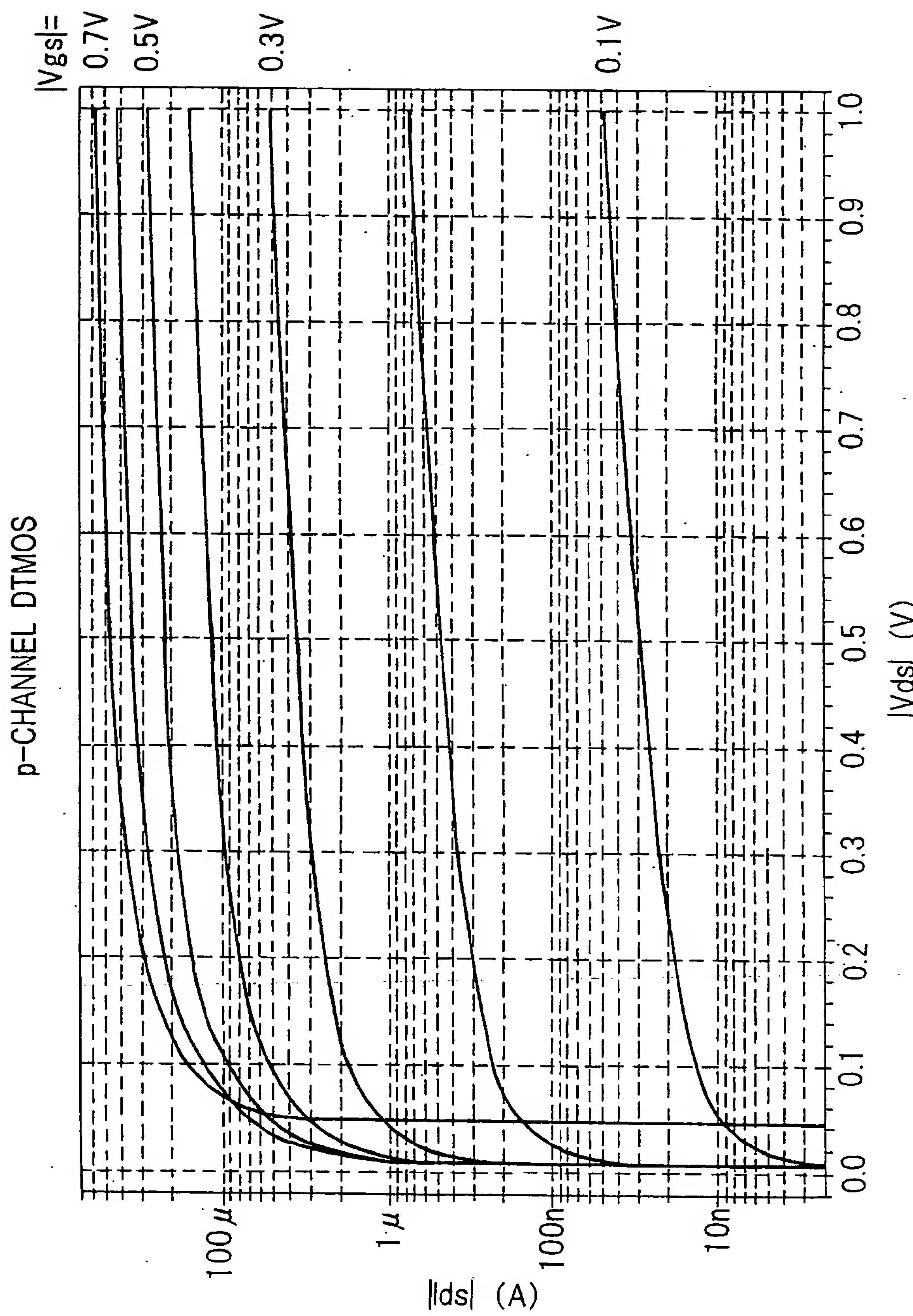


Fig. 16A

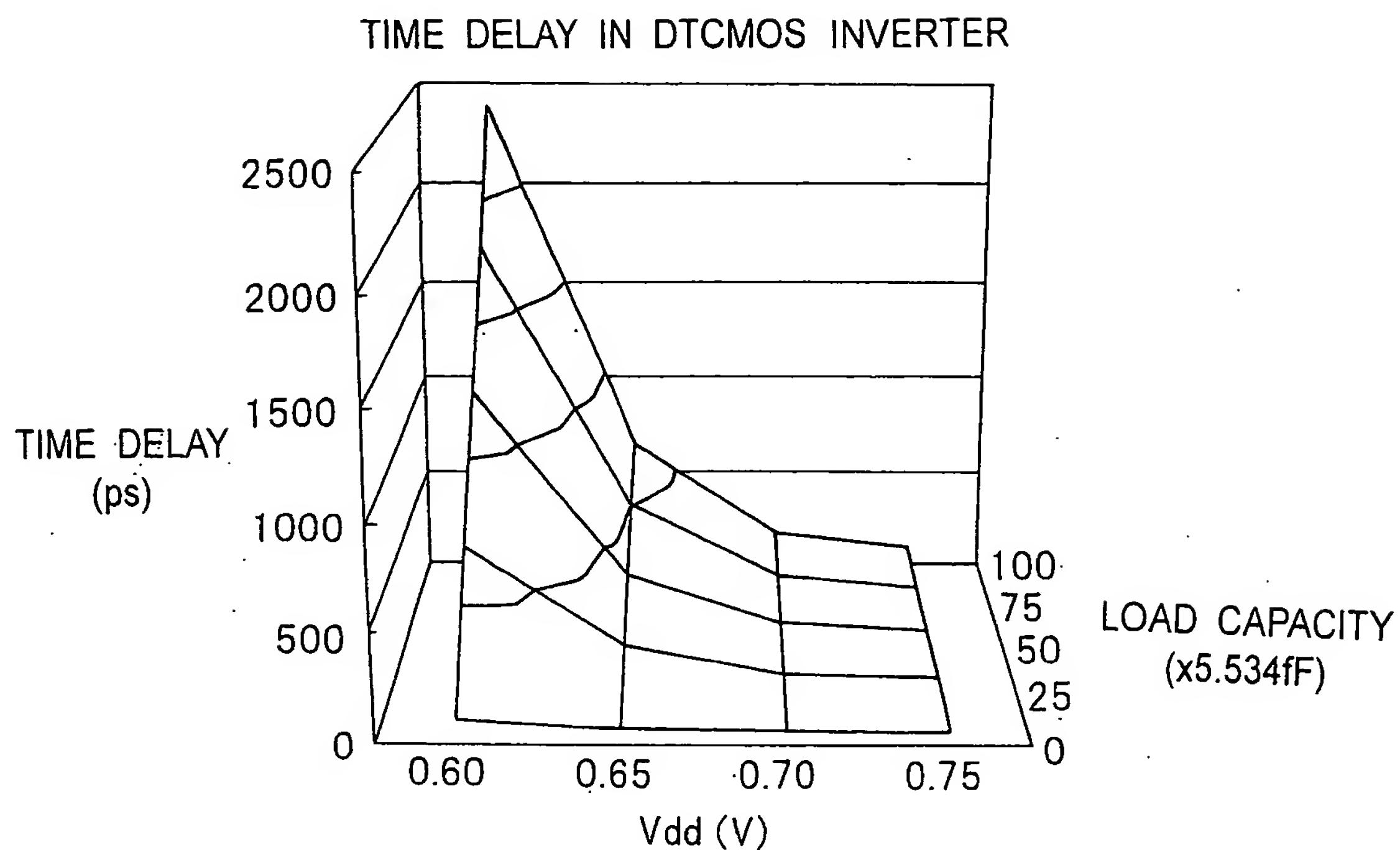
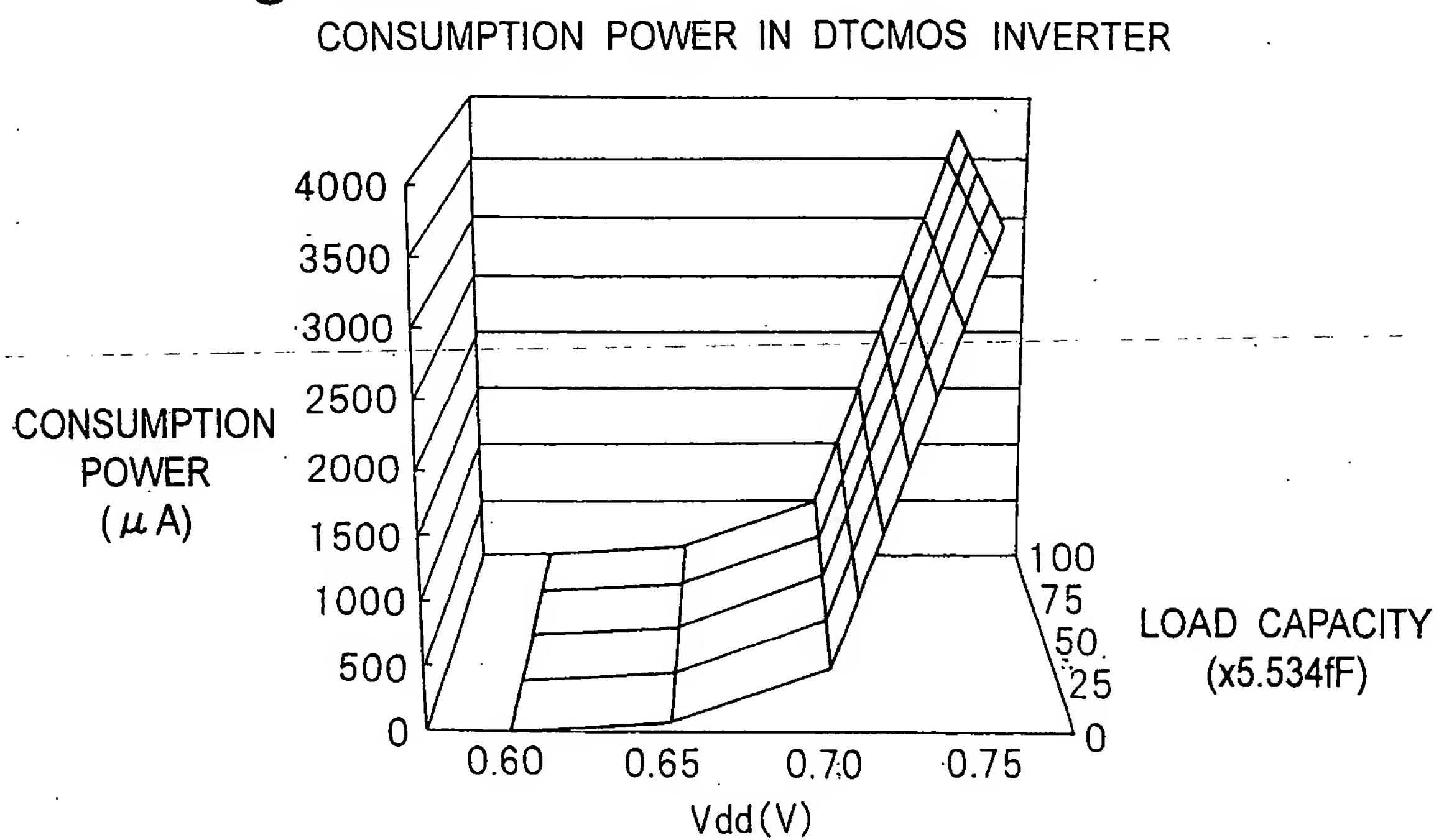


Fig. 16B



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Fig. 17A

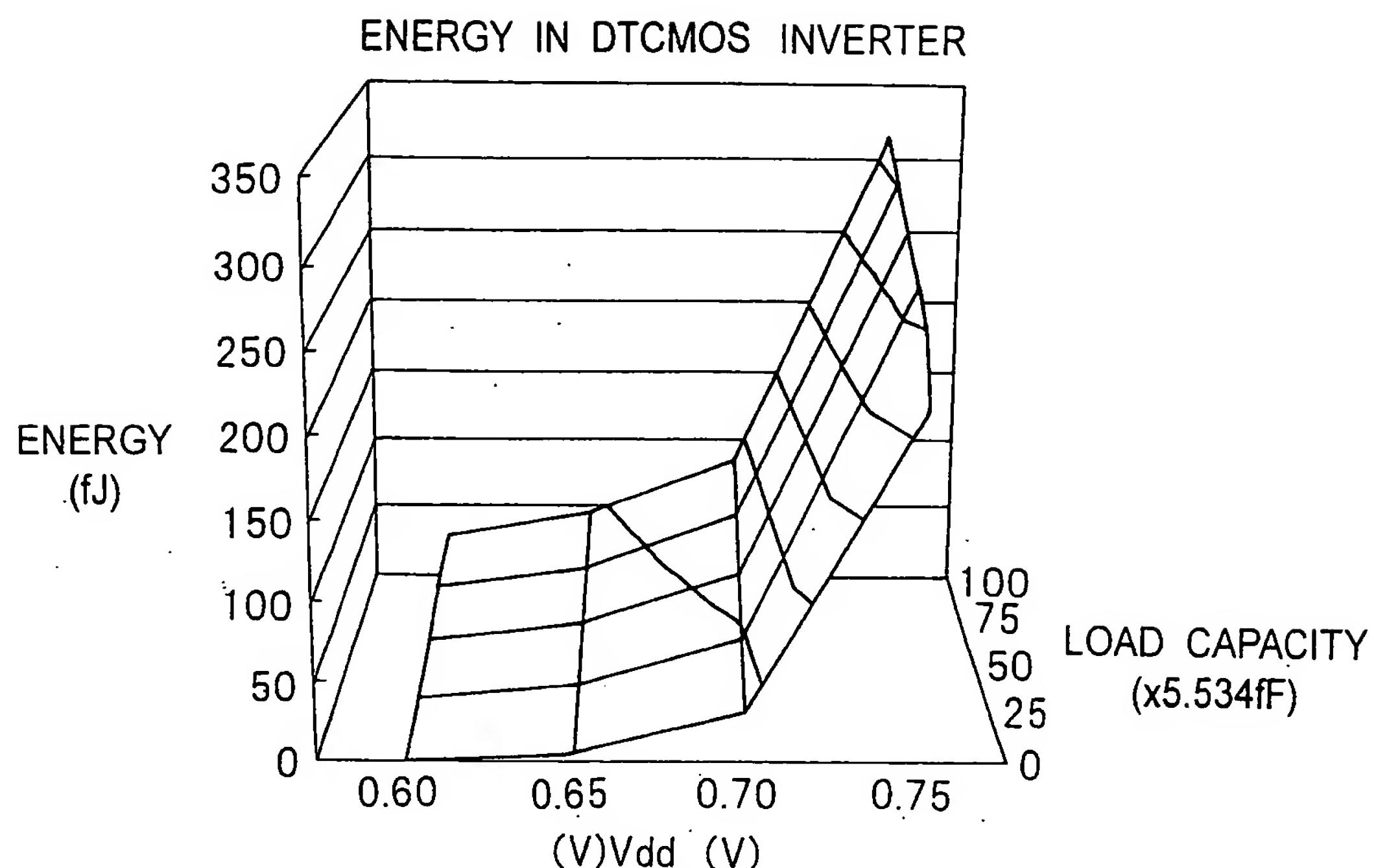
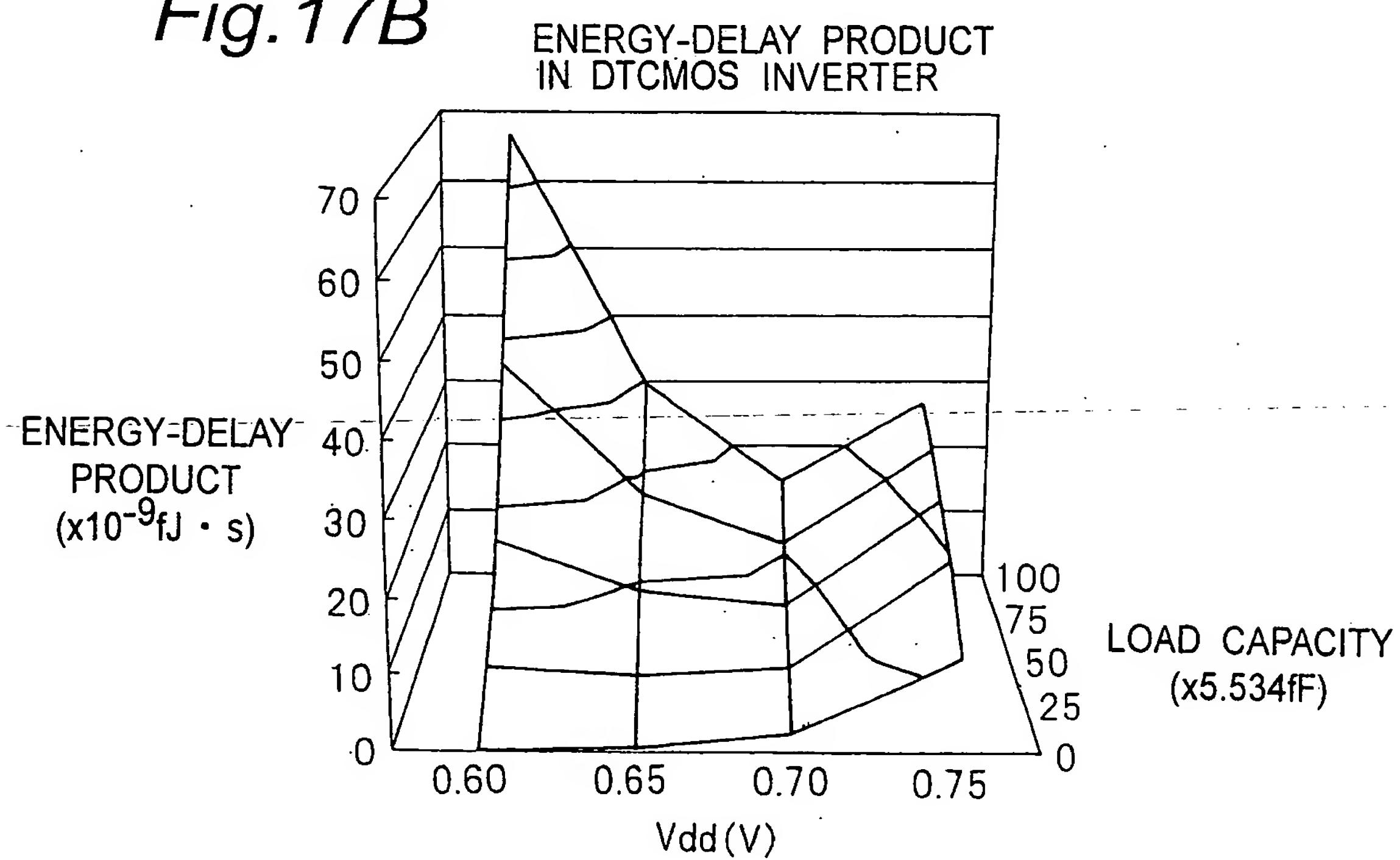


Fig. 17B



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Fig. 18

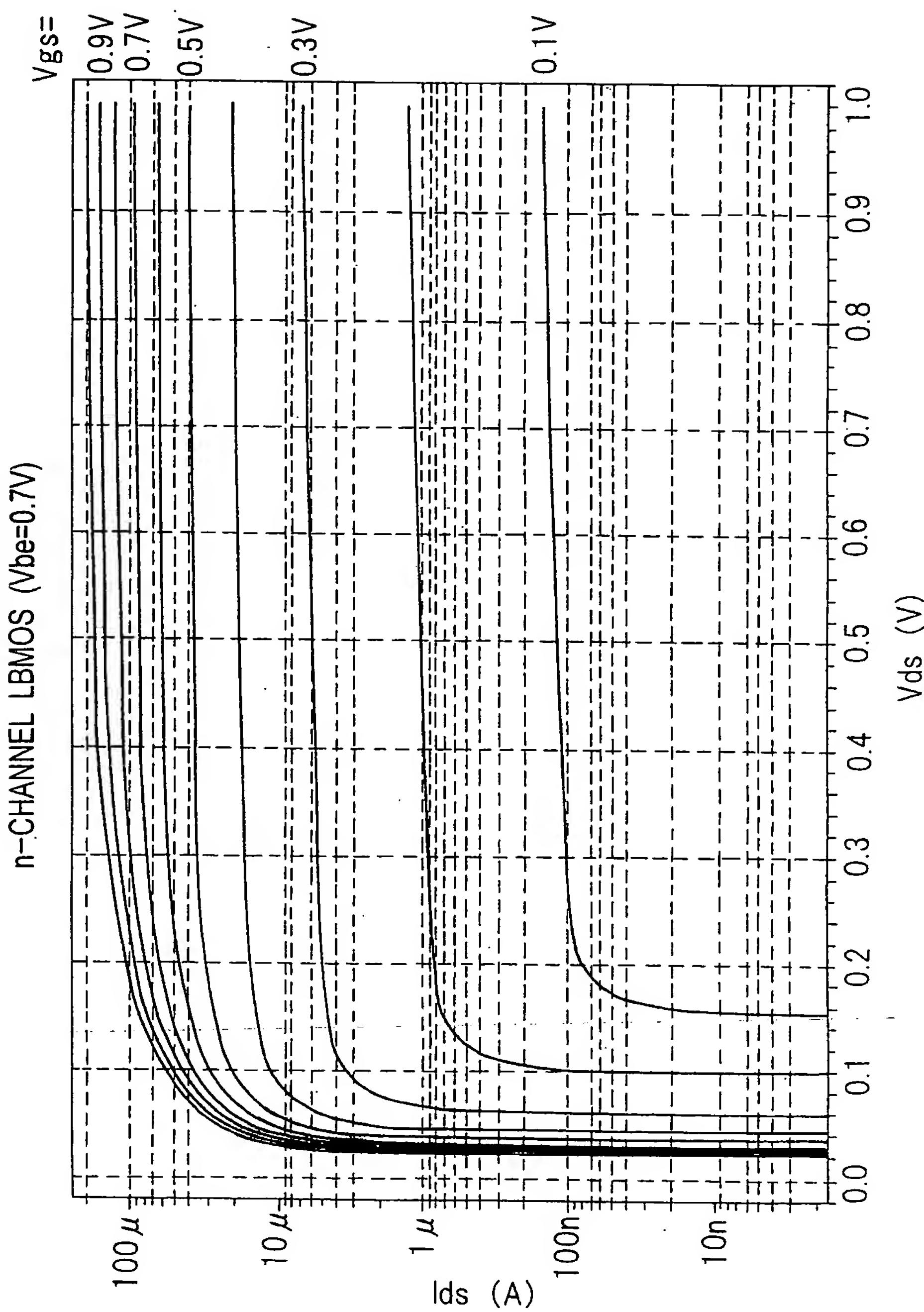


Fig. 19

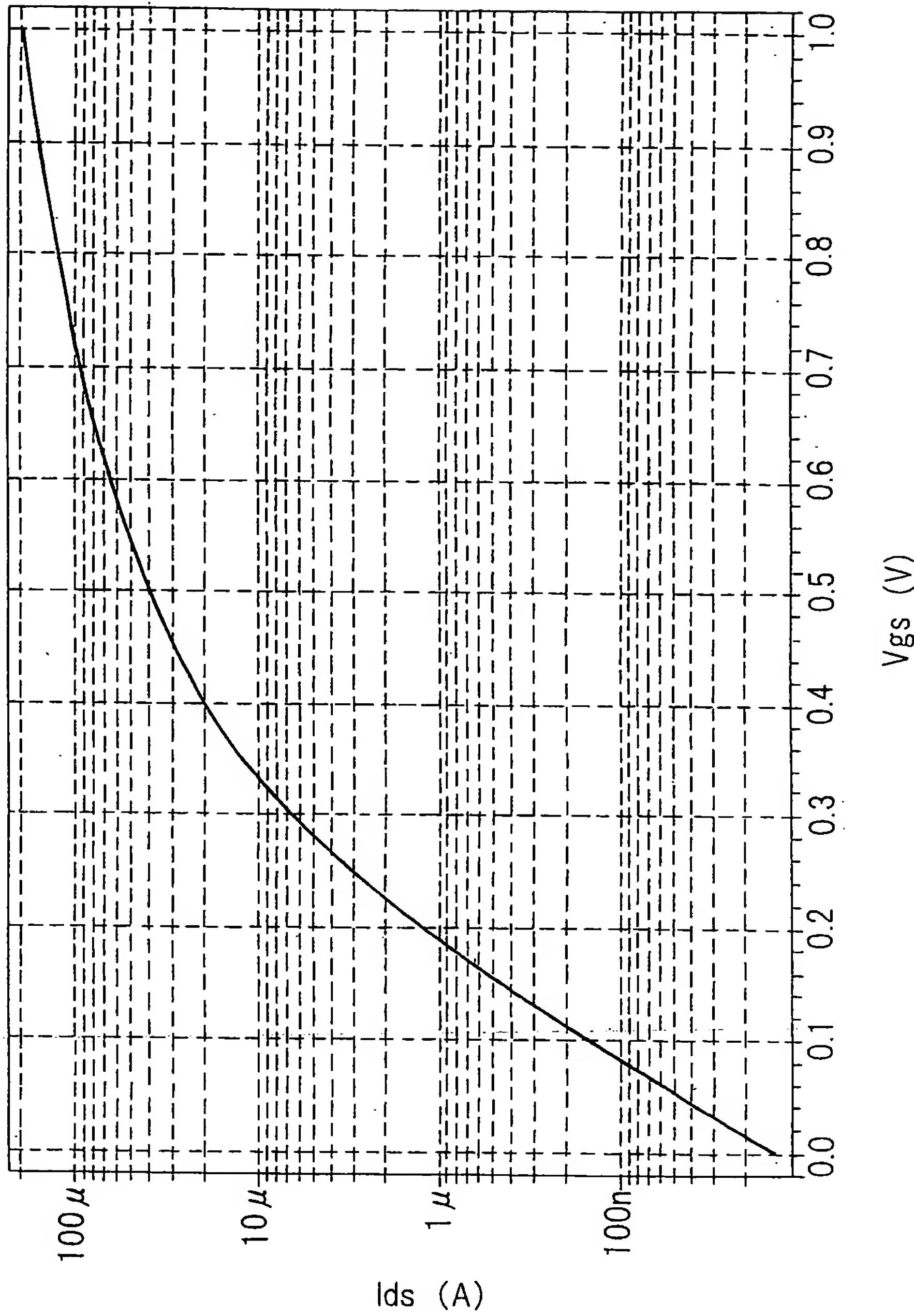
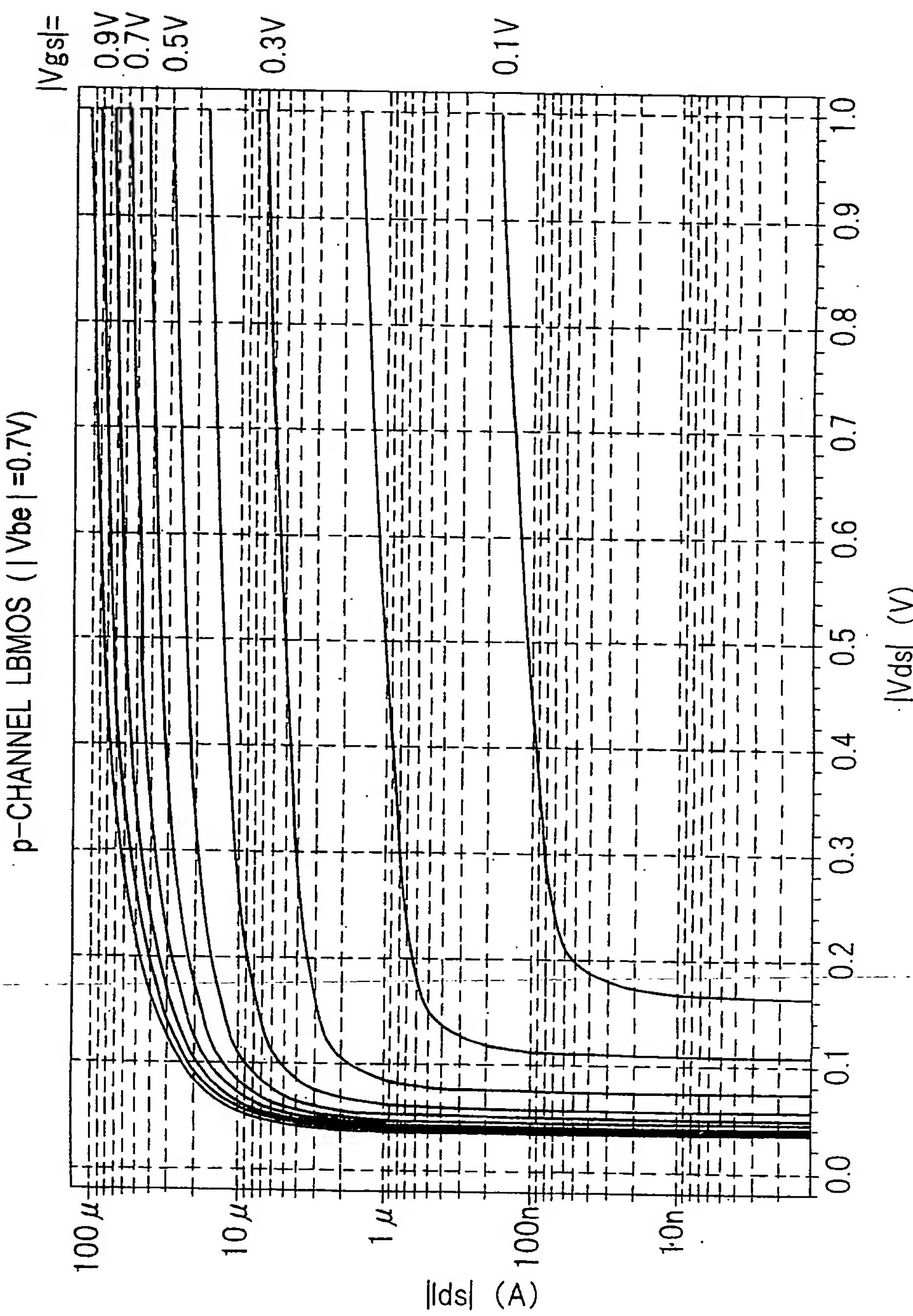
n-CHANNEL LBMOS ($V_{be}=0.7V$, $V_{ds}=1.0V$)

Fig. 20



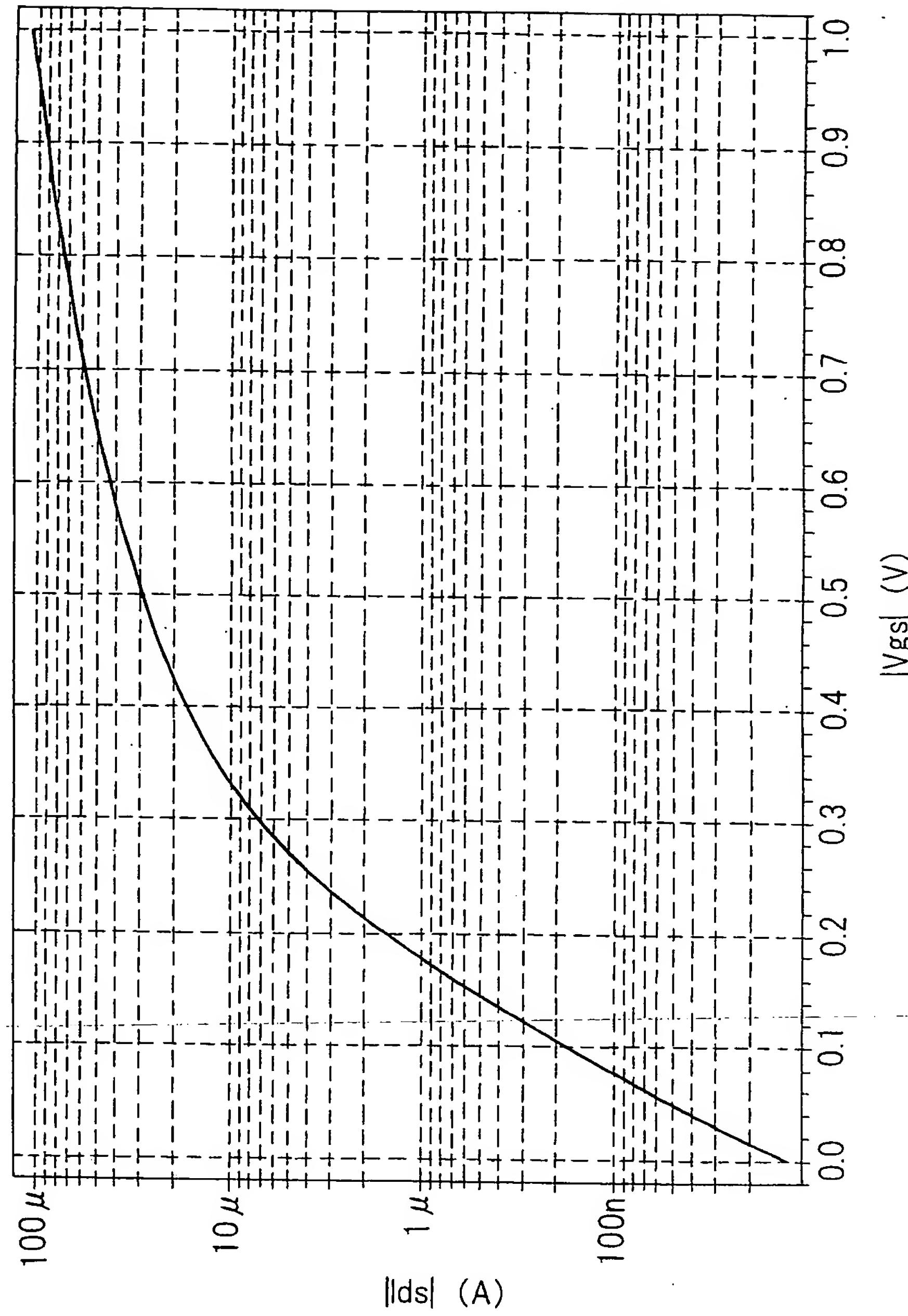
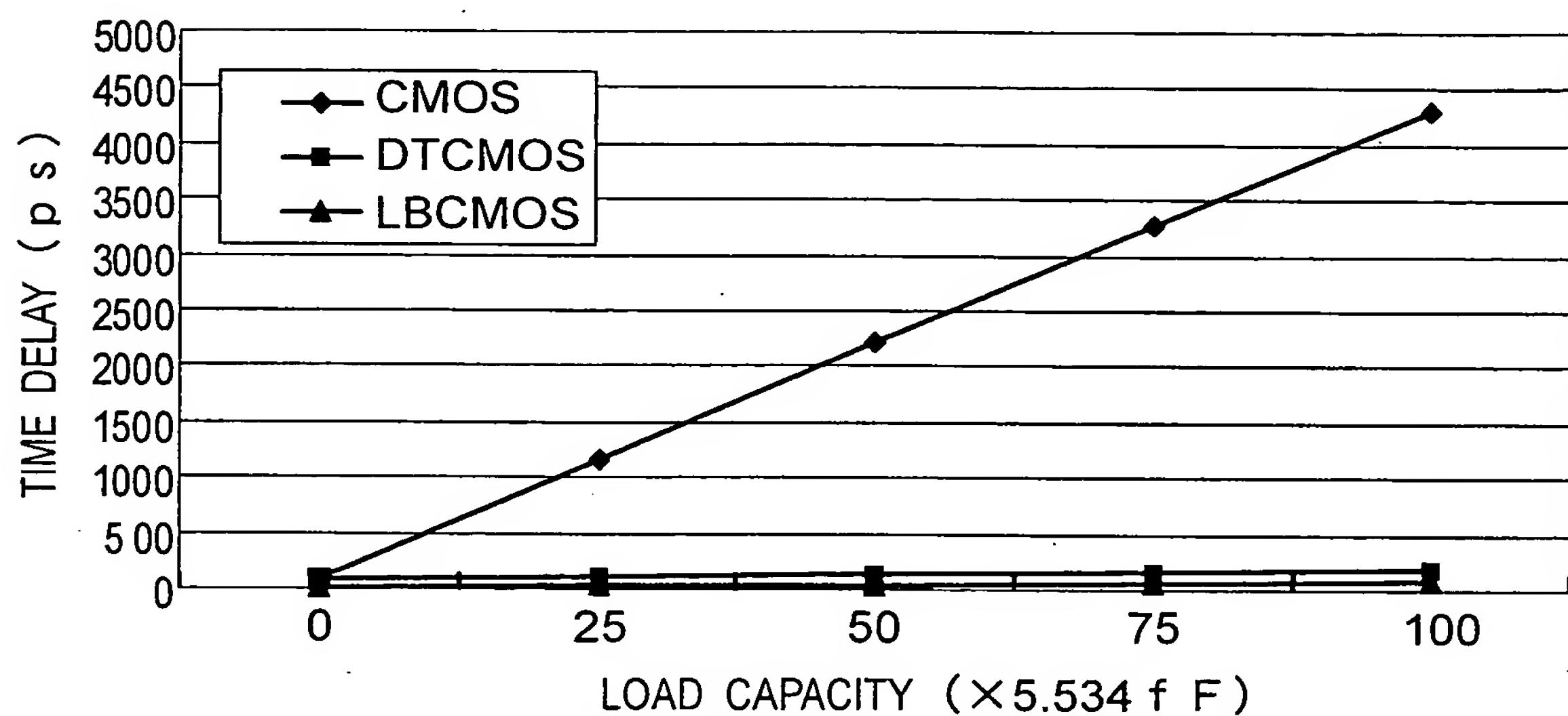
p-CHANNEL LBMOS ($|V_{be}| = 0.7V$, $|V_{ds}| = 1.0V$)

Fig. 21

Fig. 22A

TIME DELAY IN LBCMOS INVERTER DUE TO CURRENT SOURCE
($V_{dd}=0.7V$, $I_{max}=75\mu A$, $Th=100ps$)

**Fig. 22B**

CONSUMPTION POWER IN LBCMOS INVERTER DUE TO CURRENT SOURCE
($V_{dd}=0.7V$, $I_{max}=75\mu A$, $Th=100ps$)

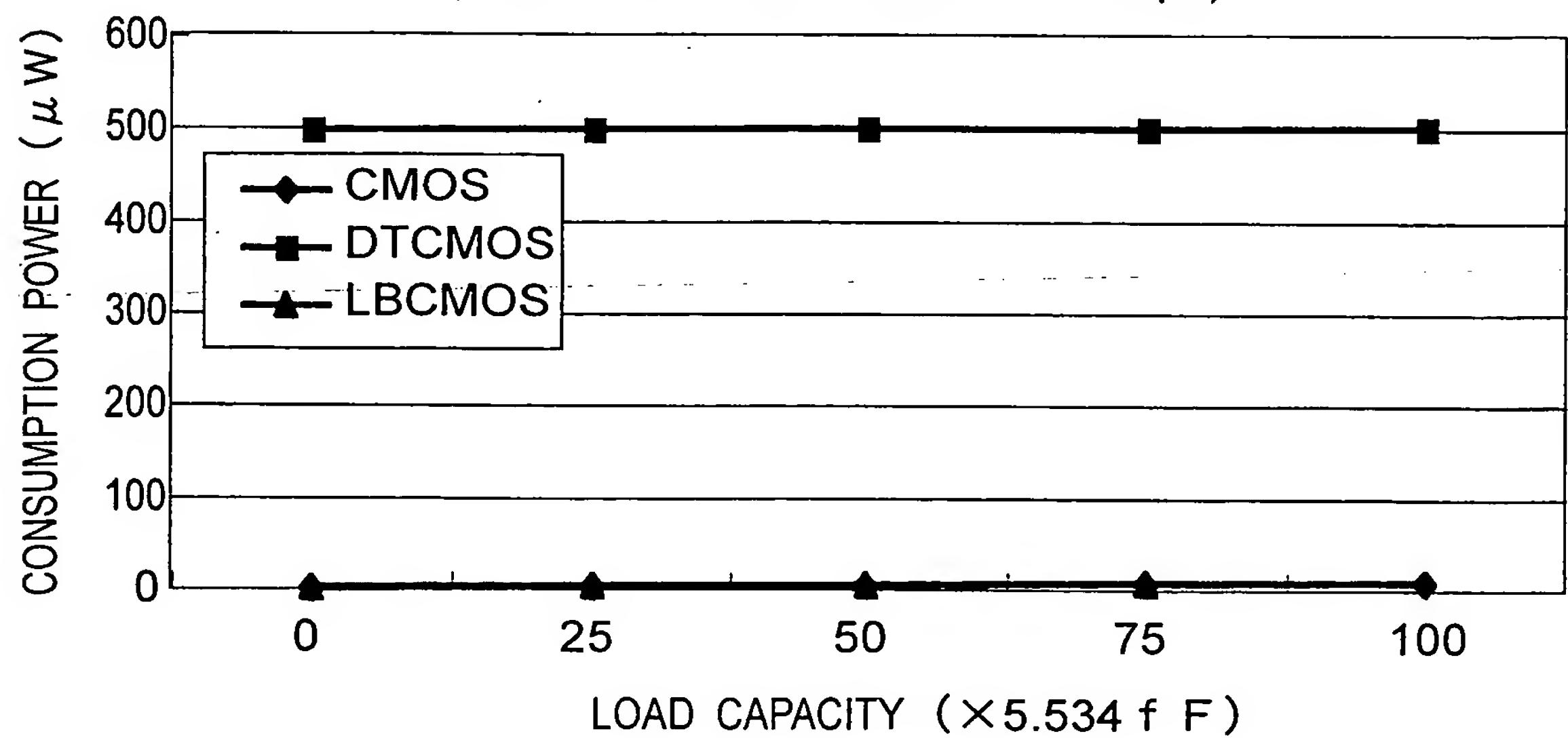


Fig.23A

ENERGY IN LBCMOS INVERTER DUE TO CURRENT SOURCE
($V_{dd}=0.7V$, $I_{max}=75\mu A$, $Th=100ps$)

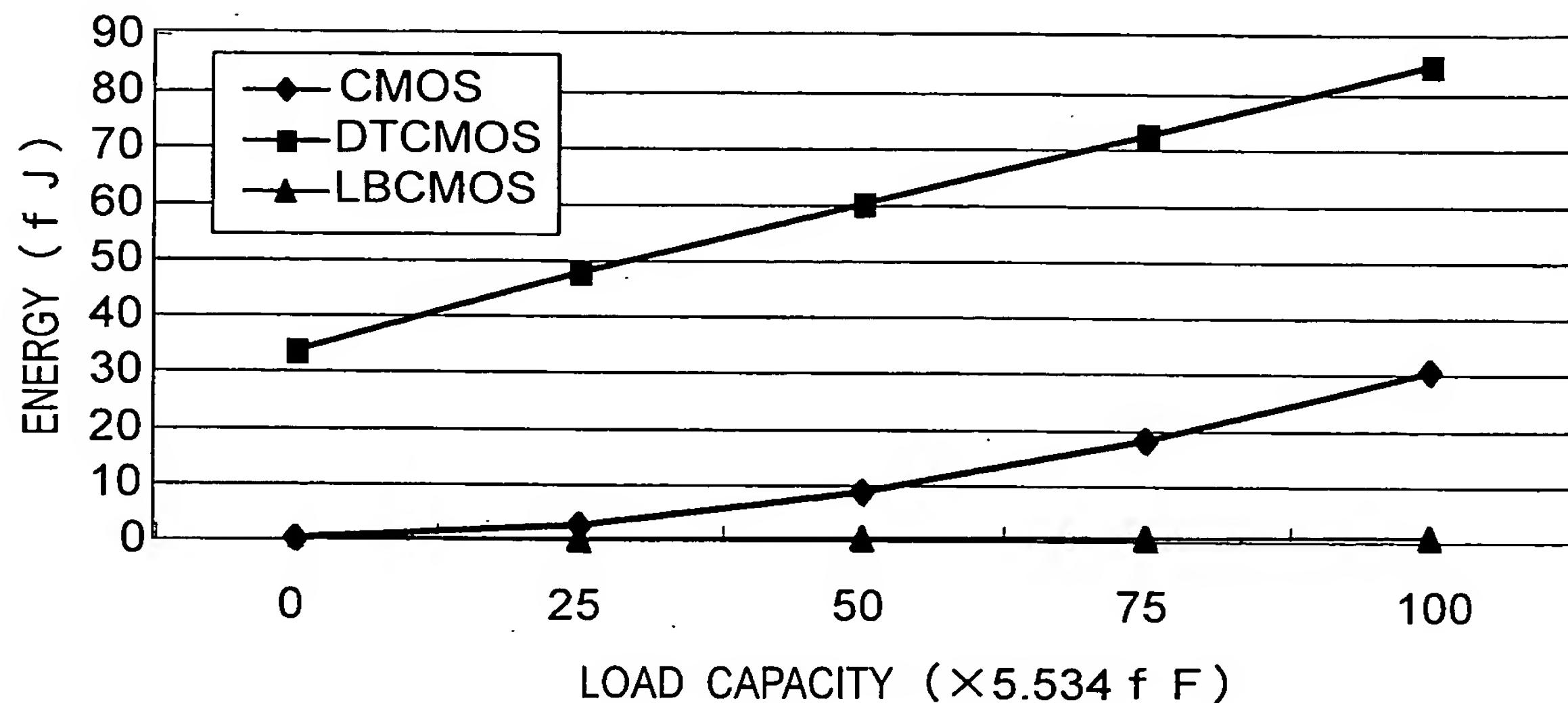


Fig.23B

ENERGY-DELAY PRODUCT IN LBCMOS INVERTER DUE TO CURRENT SOURCE
($V_{dd}=0.7V$, $I_{max}=75\mu A$, $Th=100ps$)

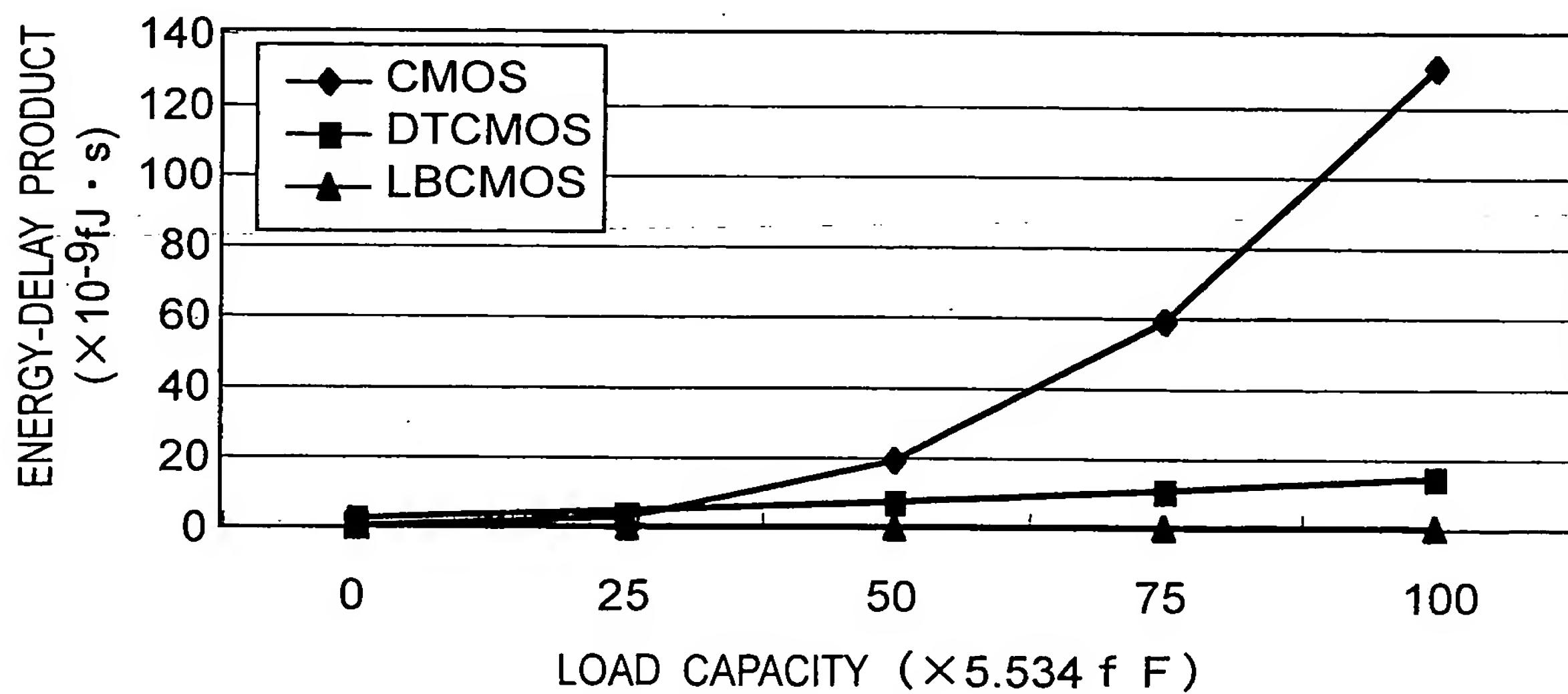


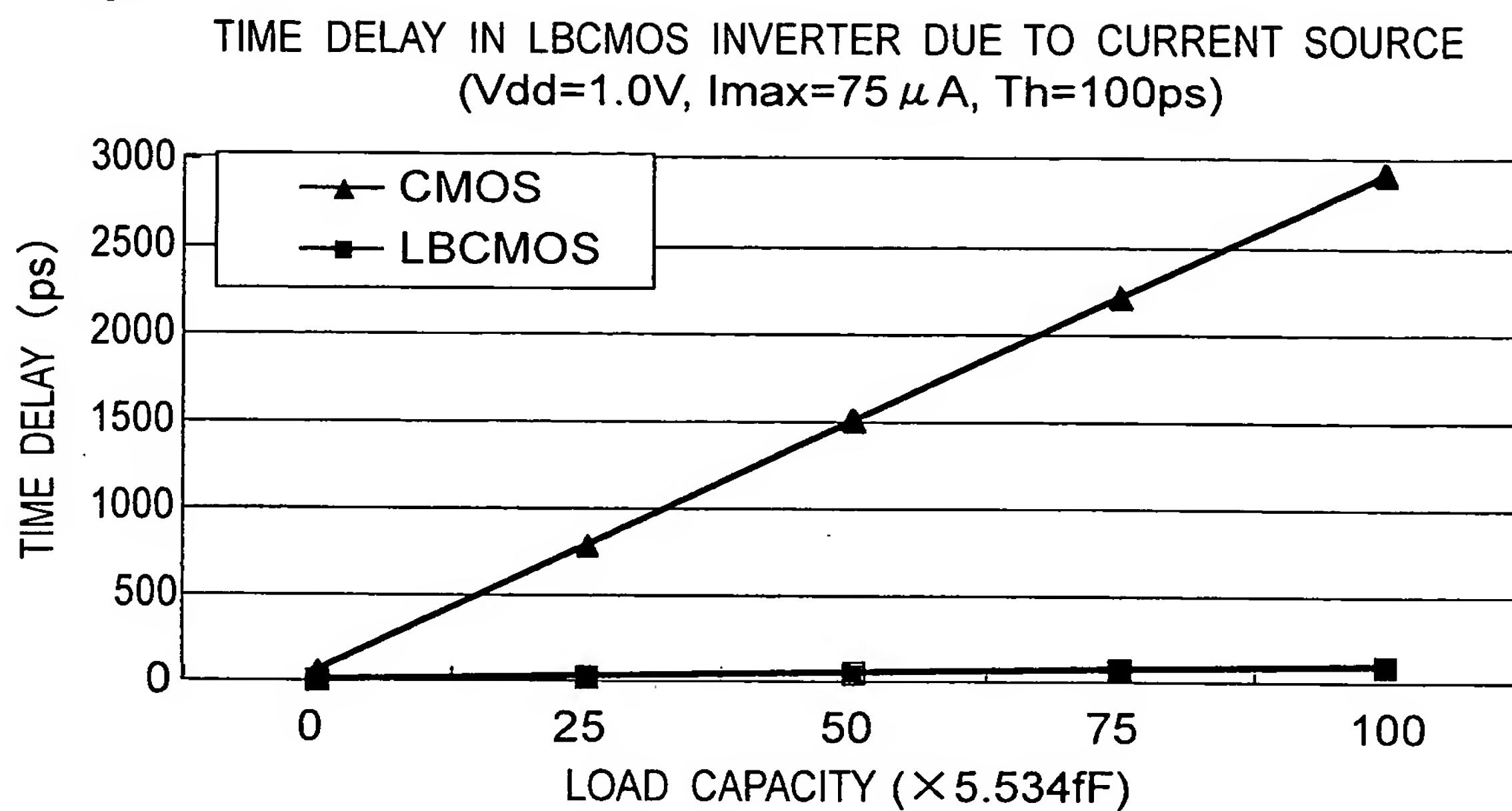
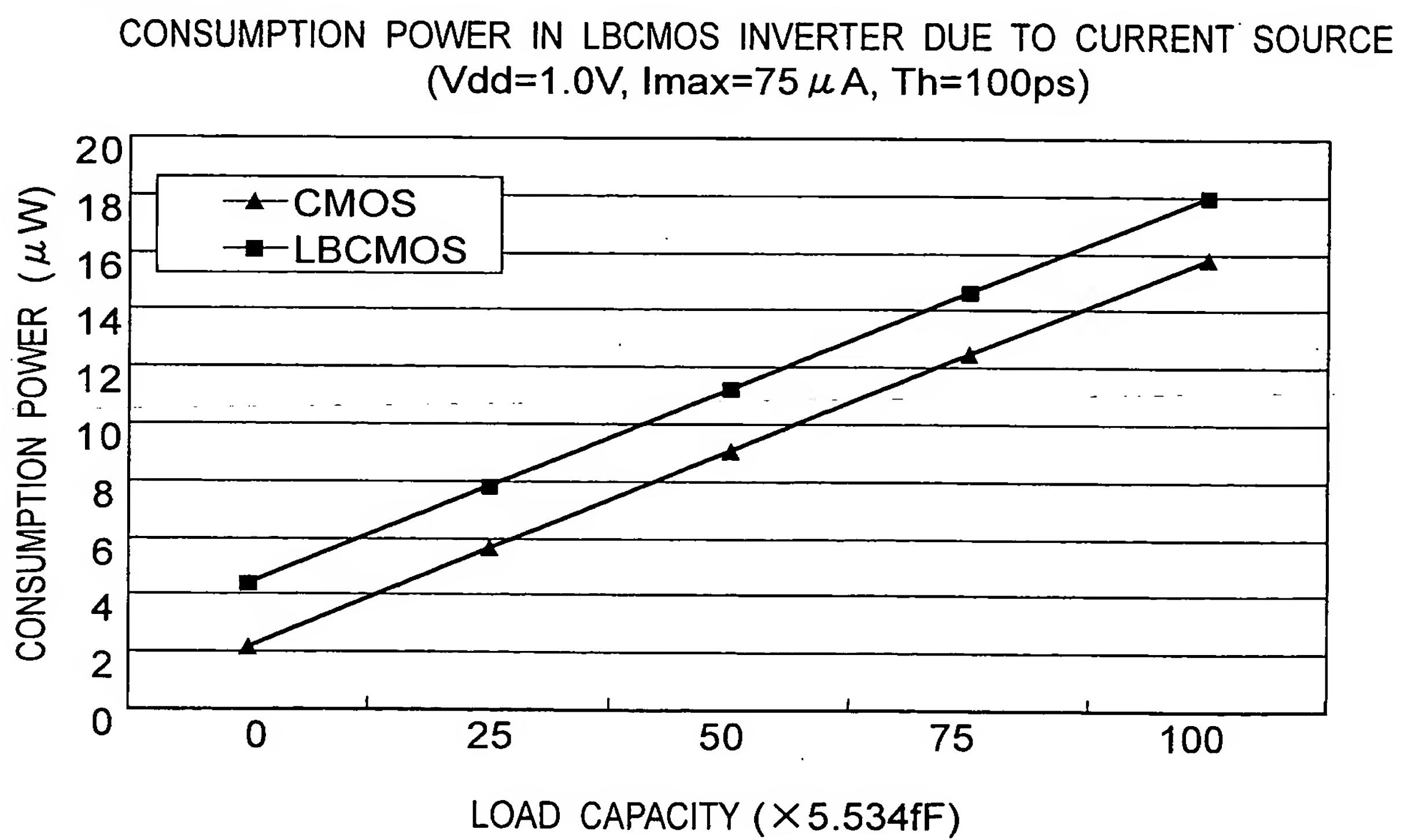
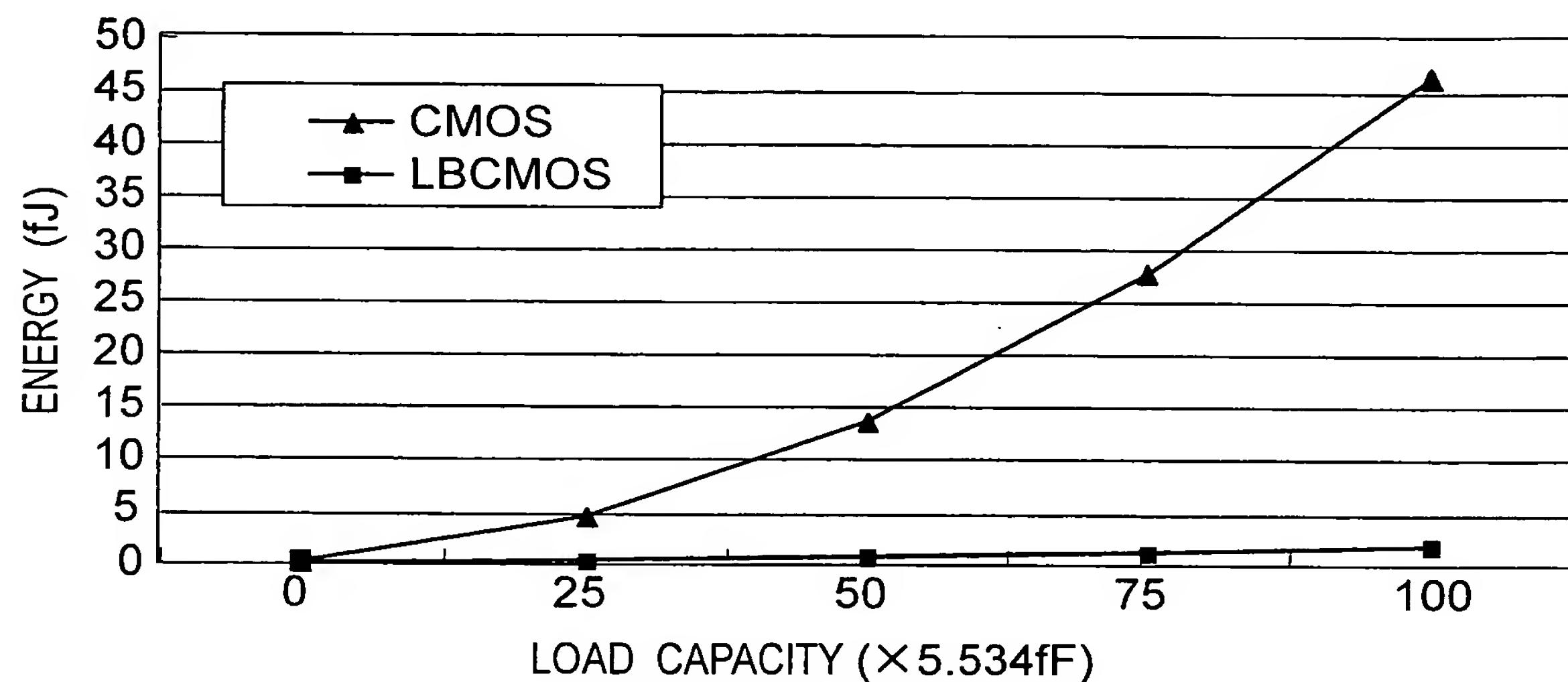
Fig. 24A*Fig. 24B*

Fig. 25A

ENERGY IN LBCMOS INVERTER DUE TO CURRENT SOURCE
($V_{dd}=1.0V$, $I_{max}=75\mu A$, $Th=100ps$)

*Fig. 25B*

ENERGY-DELAY PRODUCT IN LBCMOS INVERTER DUE TO CURRENT SOURCE
($V_{dd}=1.0V$, $I_{max}=75\mu A$, $Th=100ps$)

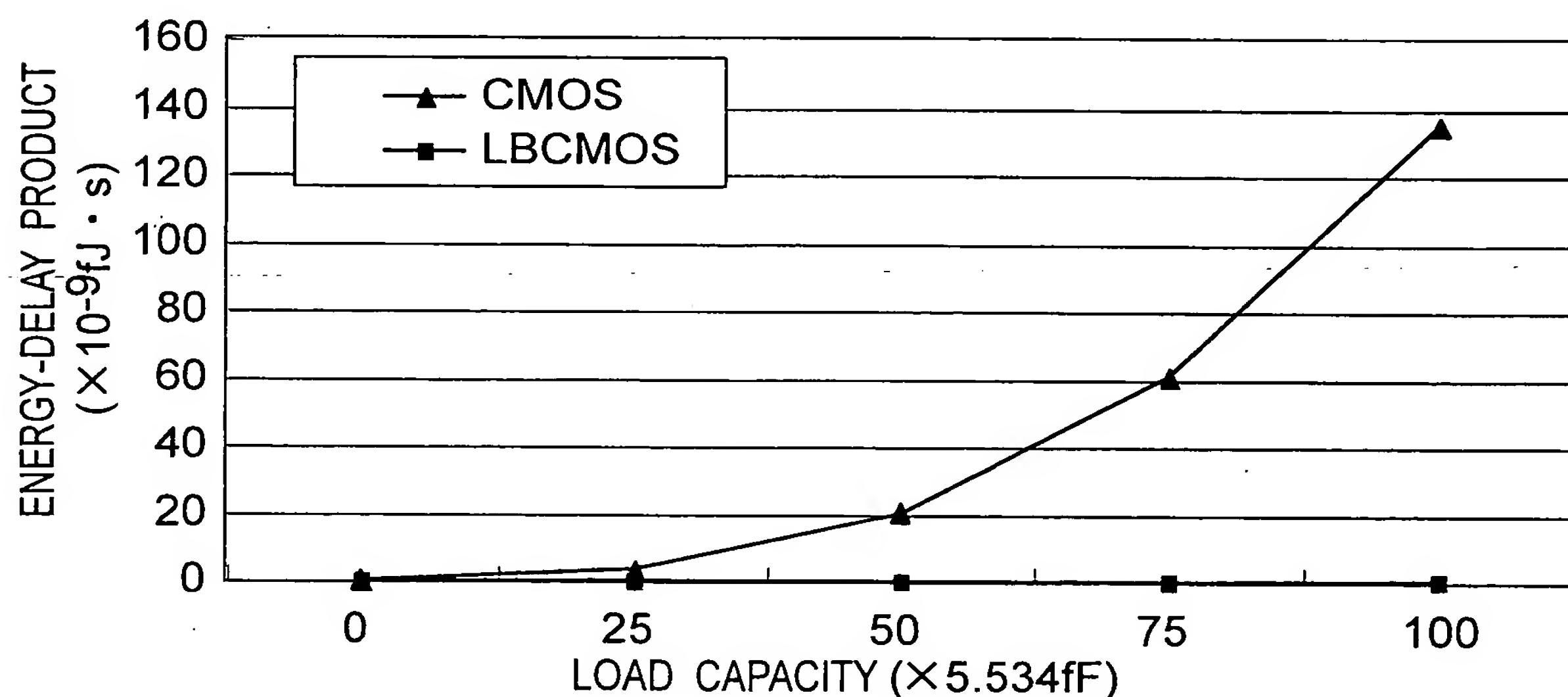


Fig. 26A

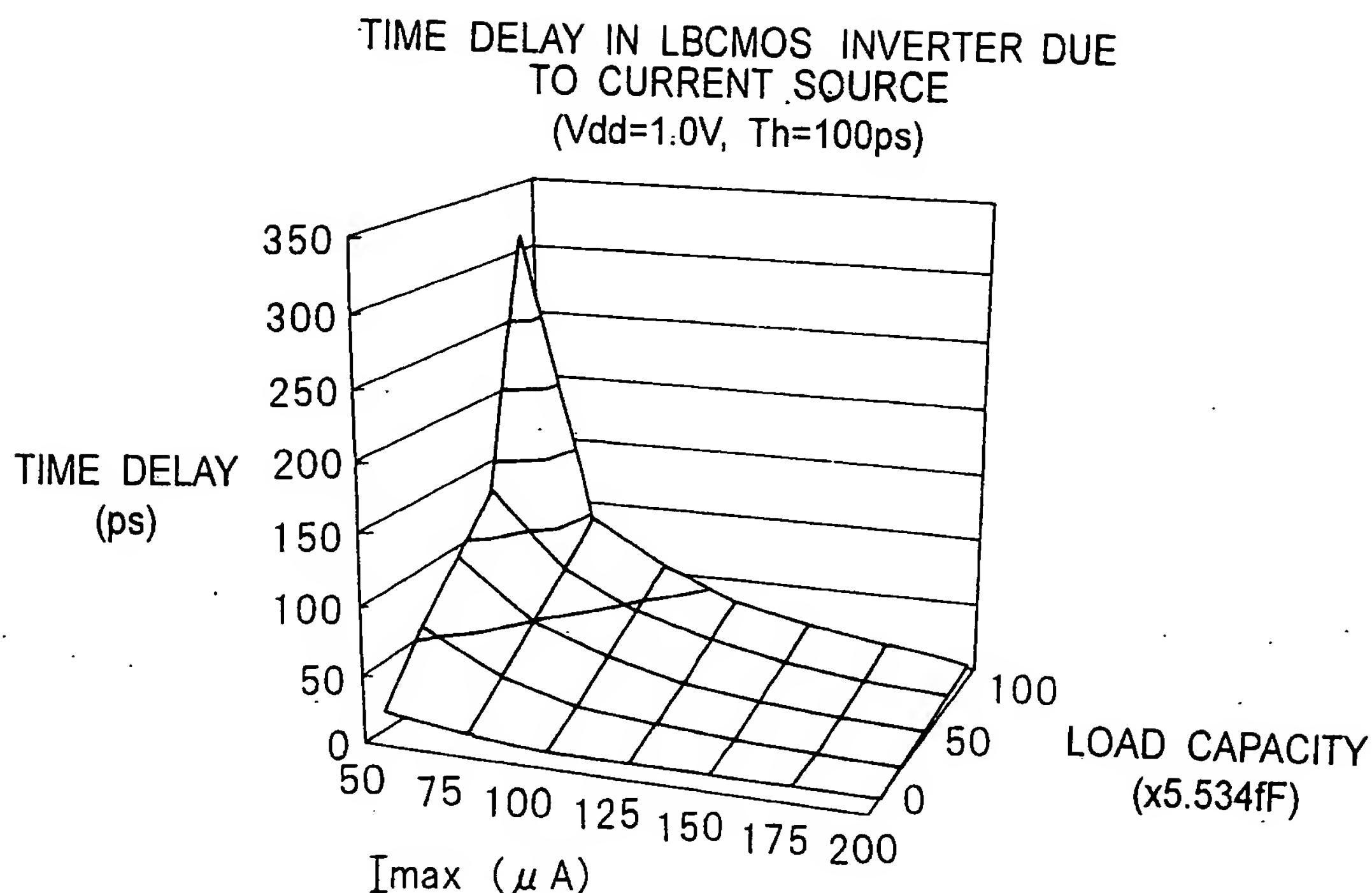


Fig. 26B

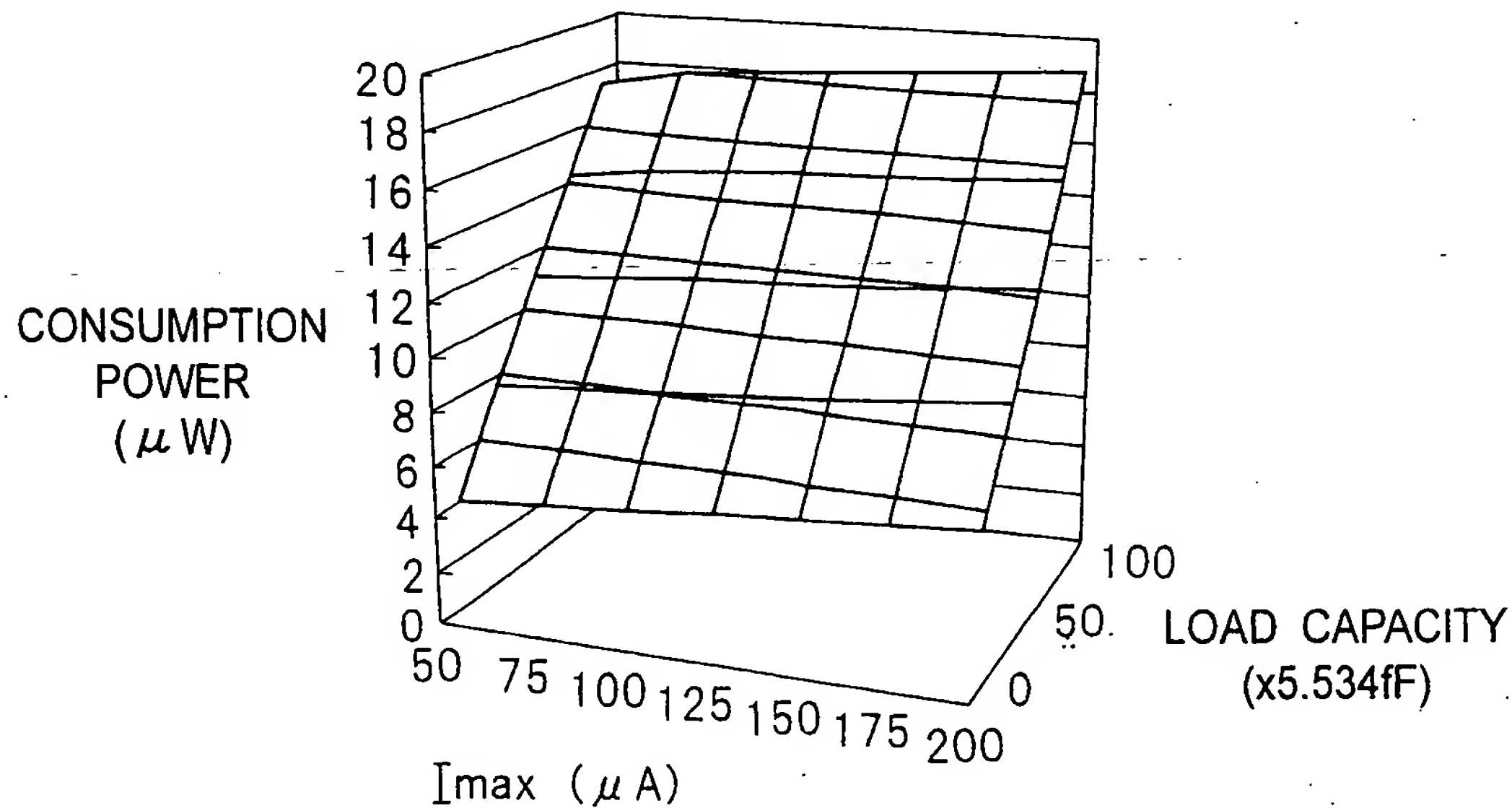
CONSUMPTION POWER IN LBCMOS
INVERTER DUE TO CURRENT SOURCE
(V_{dd}=1.0V, Th=100ps)

Fig.27A

ENERGY IN LBCMOS INVERTER DUE
TO CURRENT SOURCE
(Vdd=1.0V, Th=100ps)

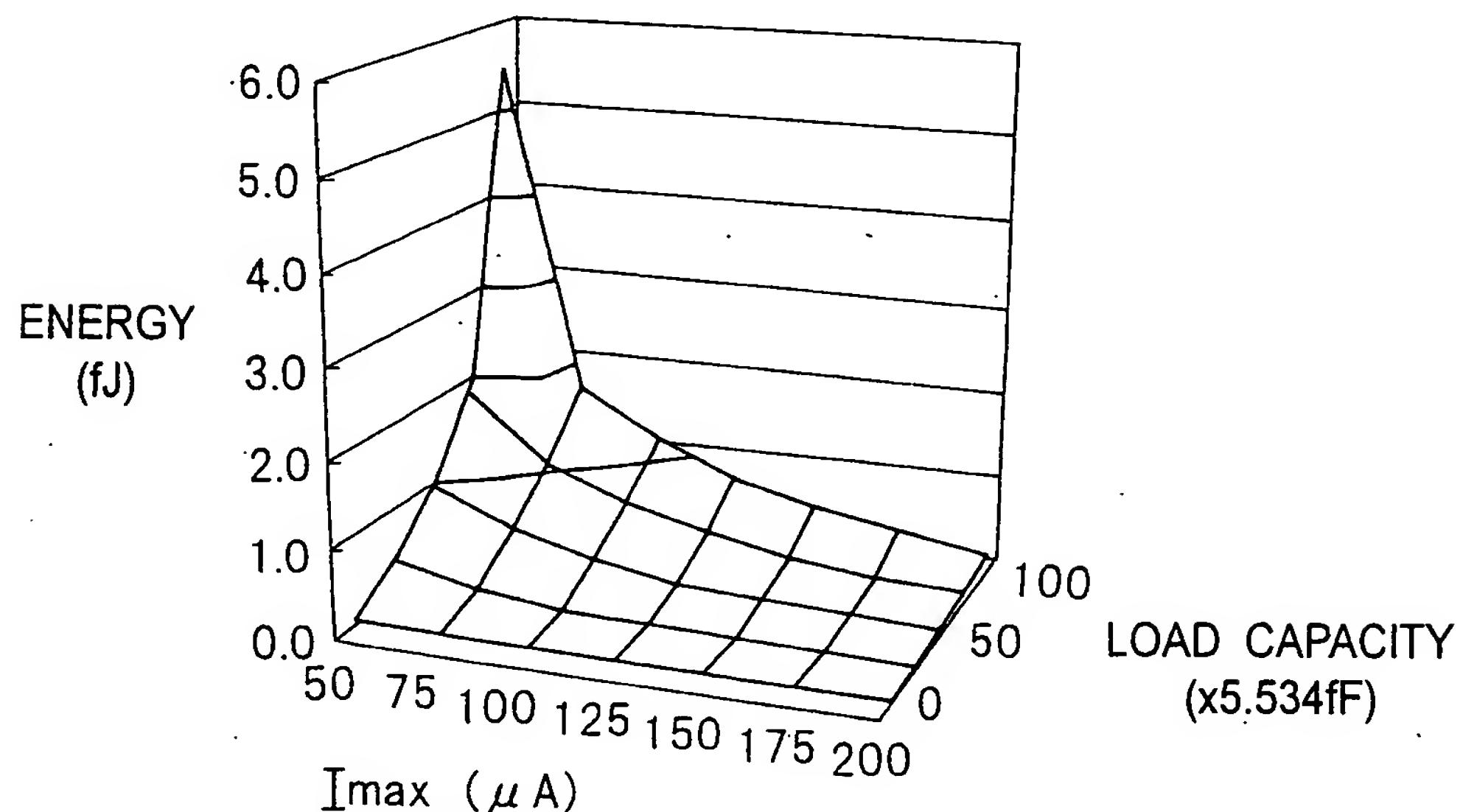


Fig.27B

DELAY PRODUCT IN LBCMOS
INVERTER DUE TO CURRENT SOURCE
(Vdd=1.0V, Th=100ps)

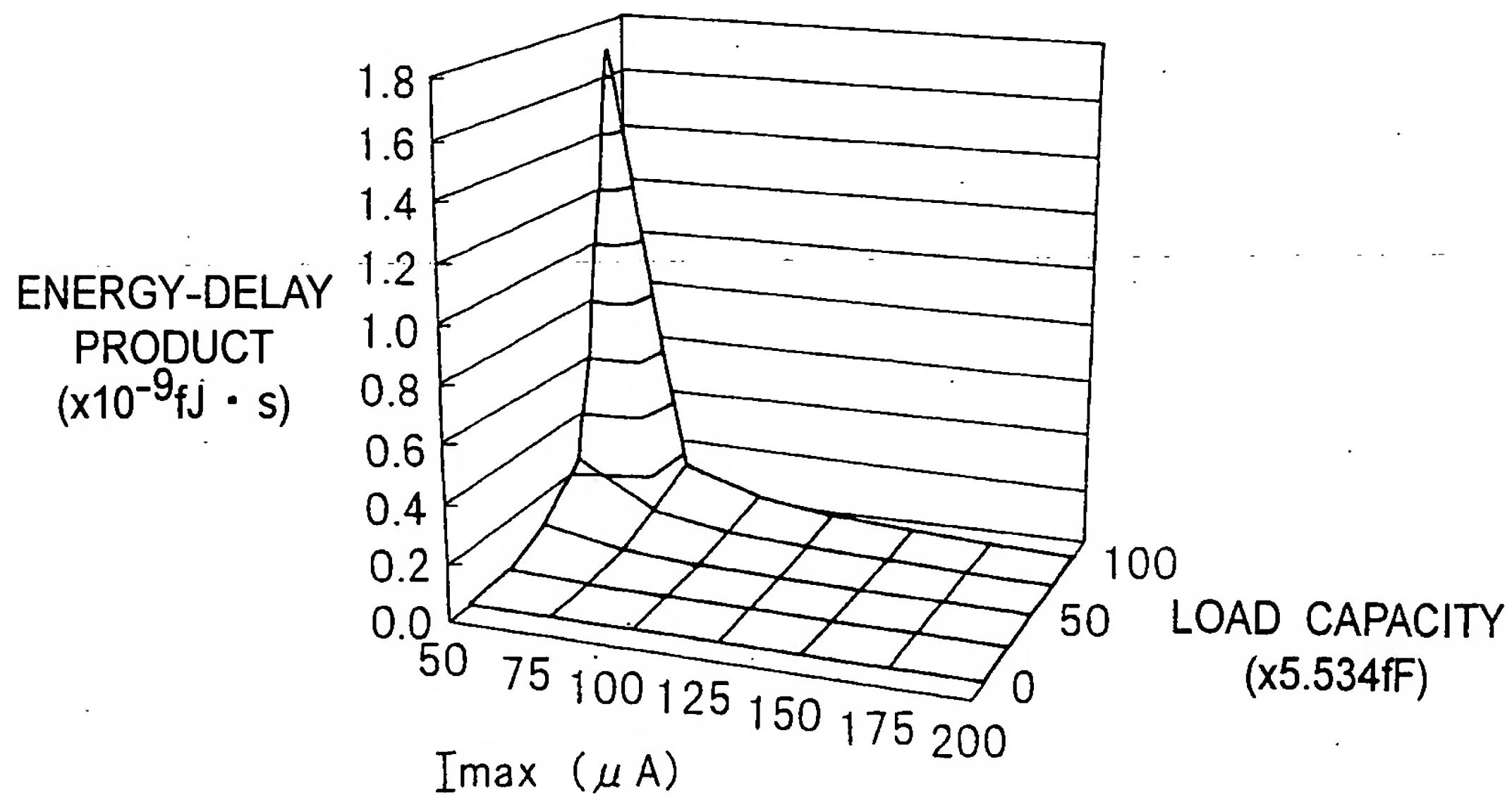


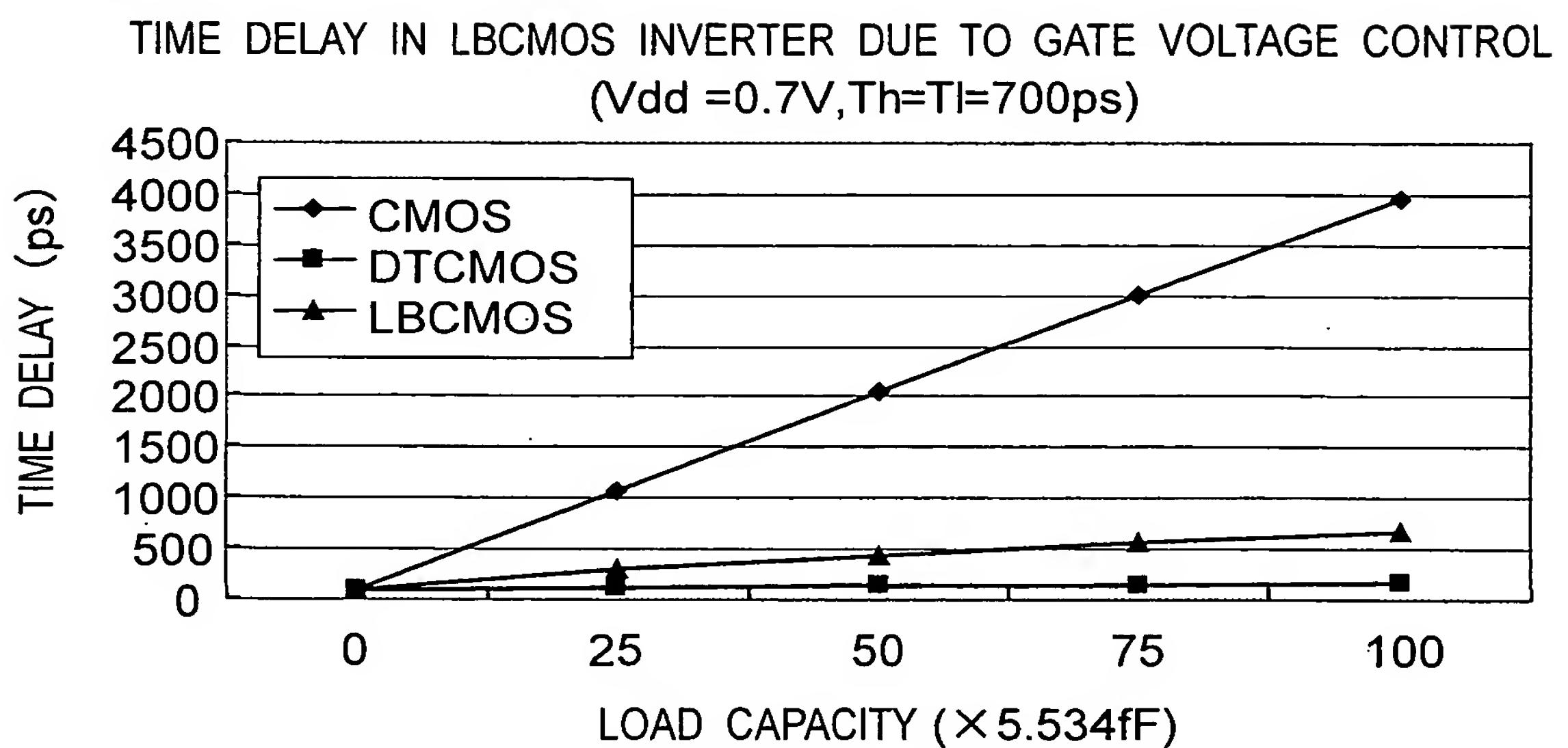
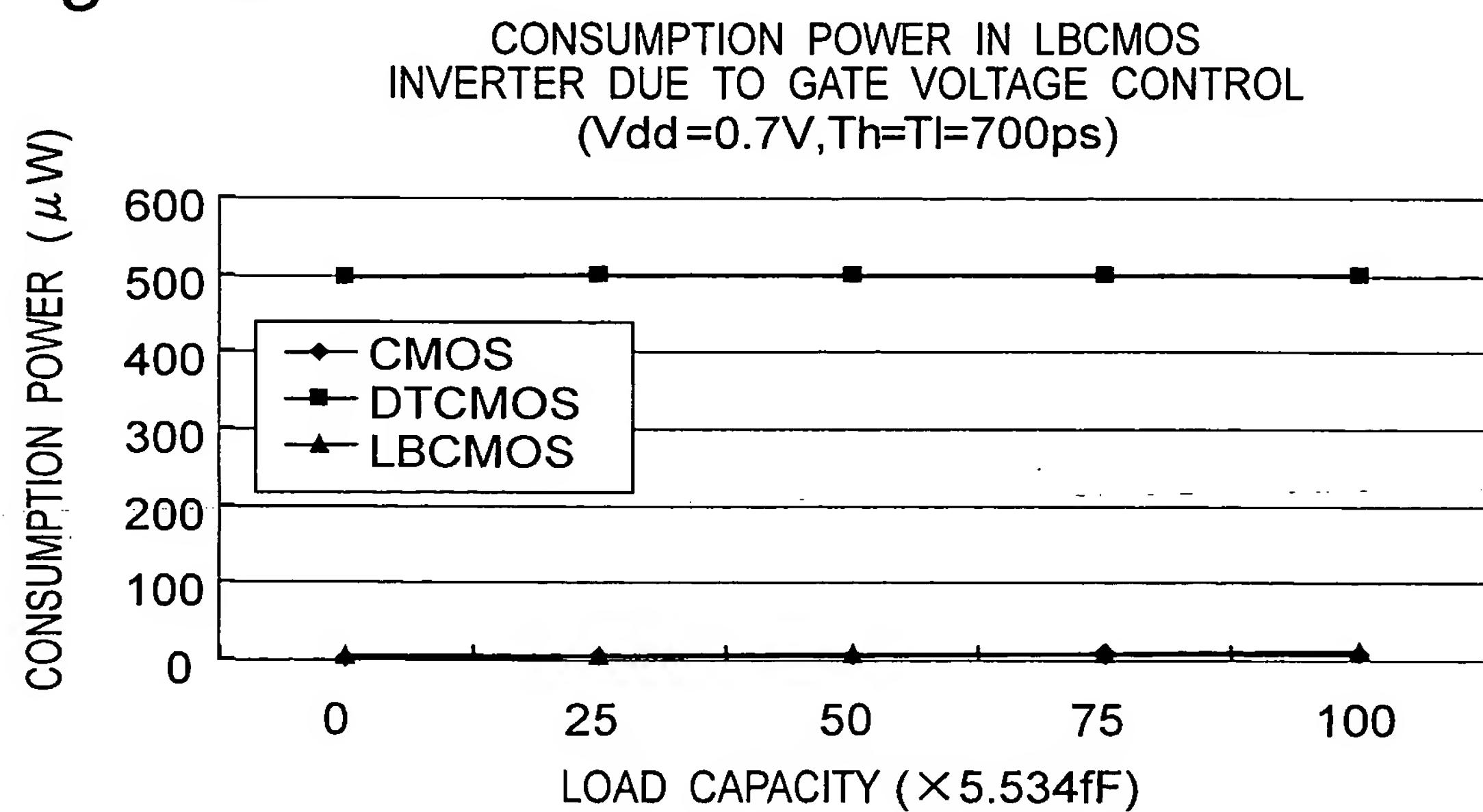
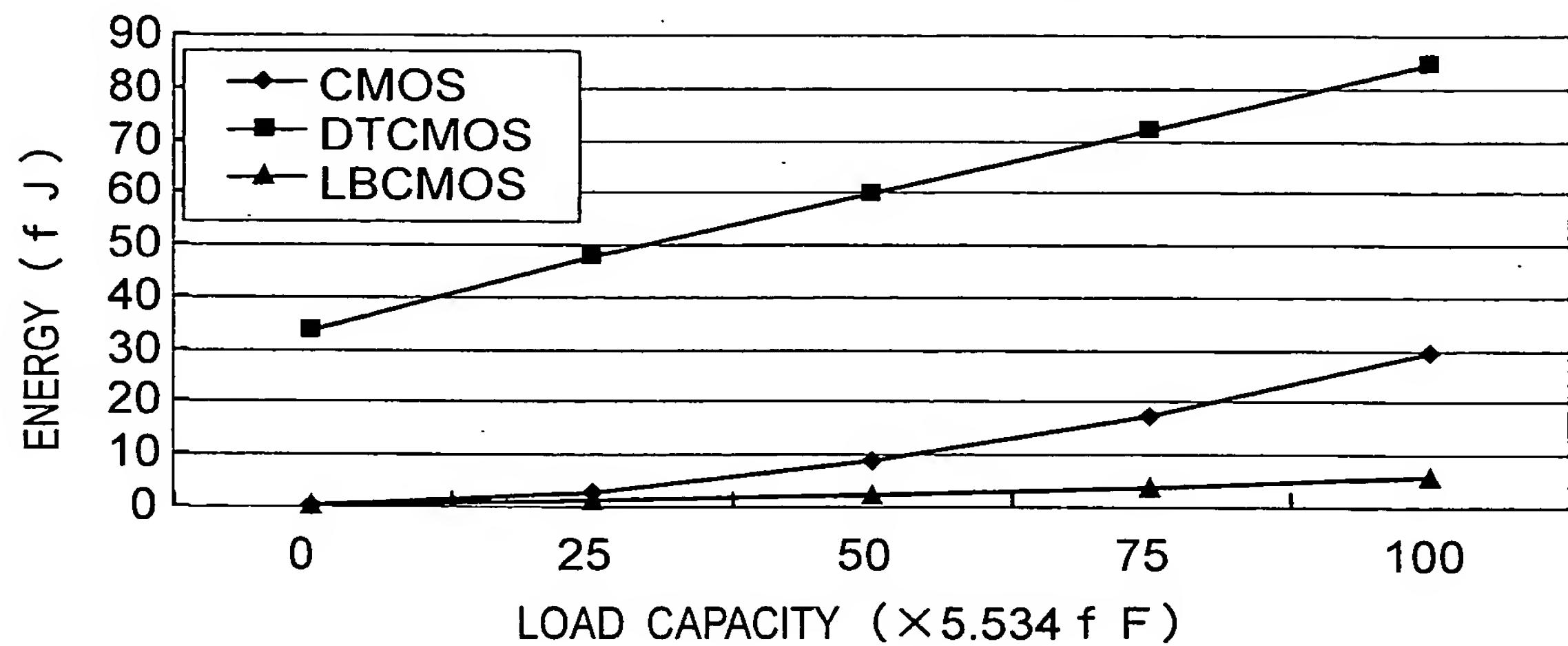
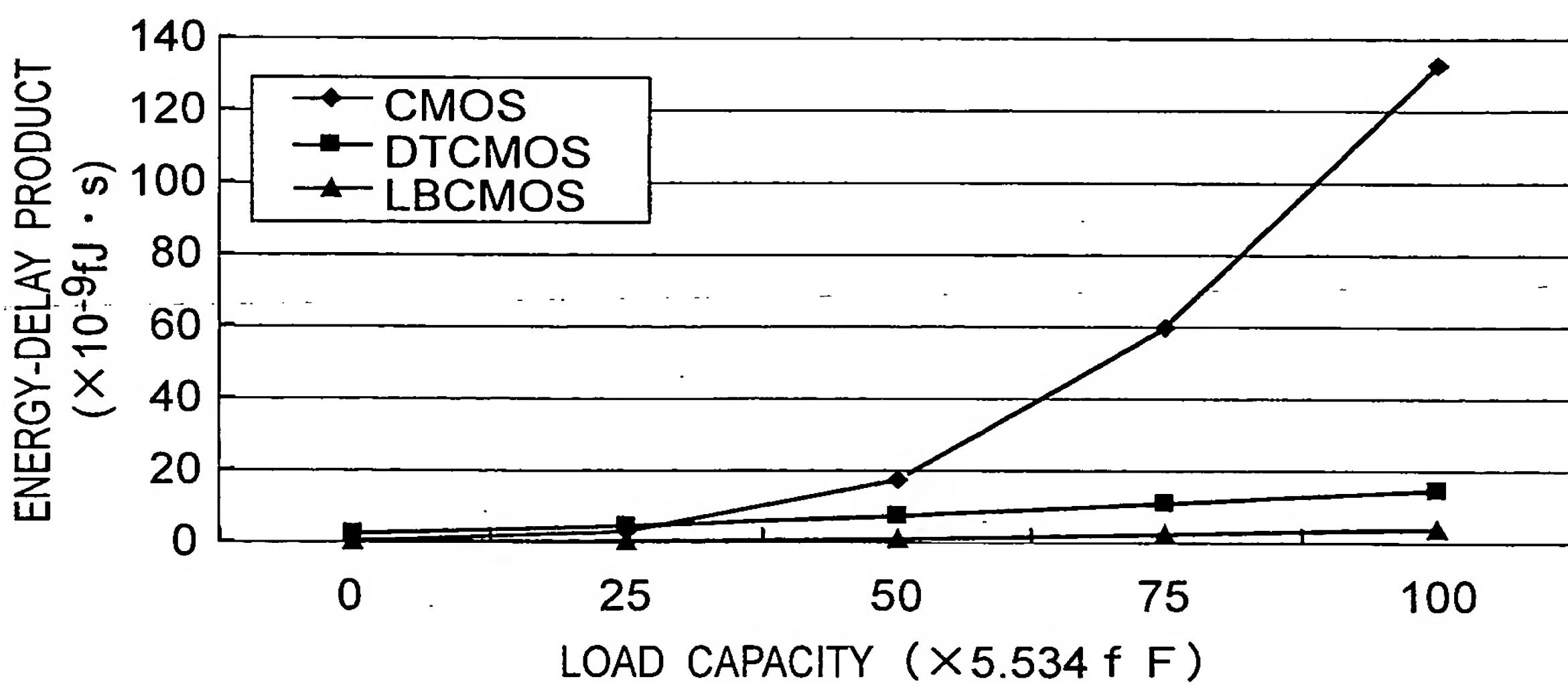
Fig.28A*Fig.28B*

Fig. 29A

ENERGY IN LBCMOS INVERTER DUE TO GATE VOLTAGE CONTROL
($V_{dd} = 0.7V$, $T_h = T_f = 700ps$)

*Fig. 29B*

ENERGY-DELAY PRODUCT IN LBCMOS
INVERTER DUE TO GATE VOLTAGE CONTROL
($V_{dd} = 0.7V$, $T_h = T_f = 700ps$)



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Fig.30A

TIME DELAY IN LBCMOS INVERTER DUE TO GATE VOLTAGE CONTROL
($V_{dd} = 1.0V, T_h = T_l = 700ps$)

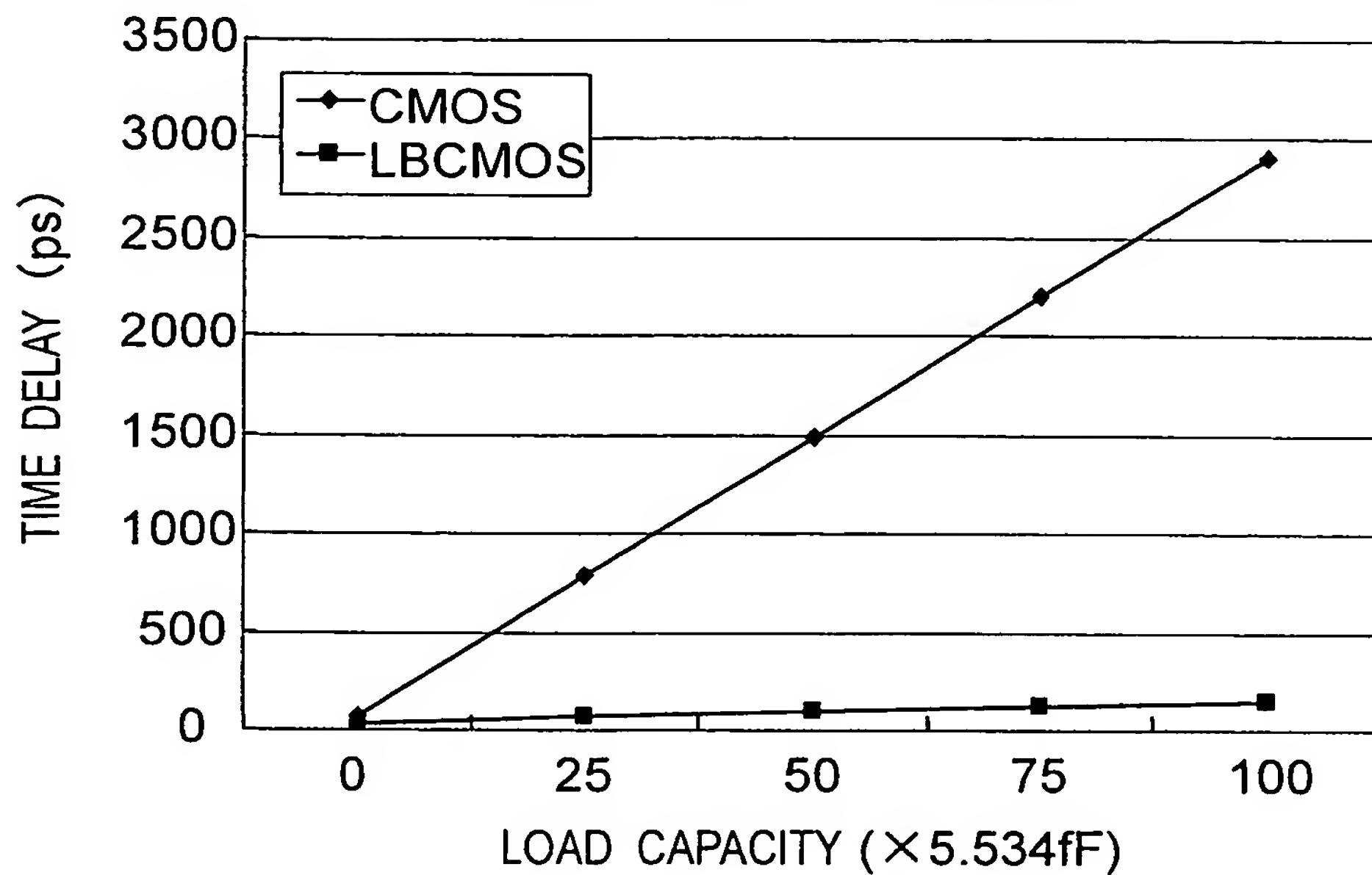


Fig.30B

CONSUMPTION POWER IN LBCMOS
INVERTER DUE TO GATE VOLTAGE CONTROL

($V_{dd} = 1.0V, T_h = T_l = 700ps$)

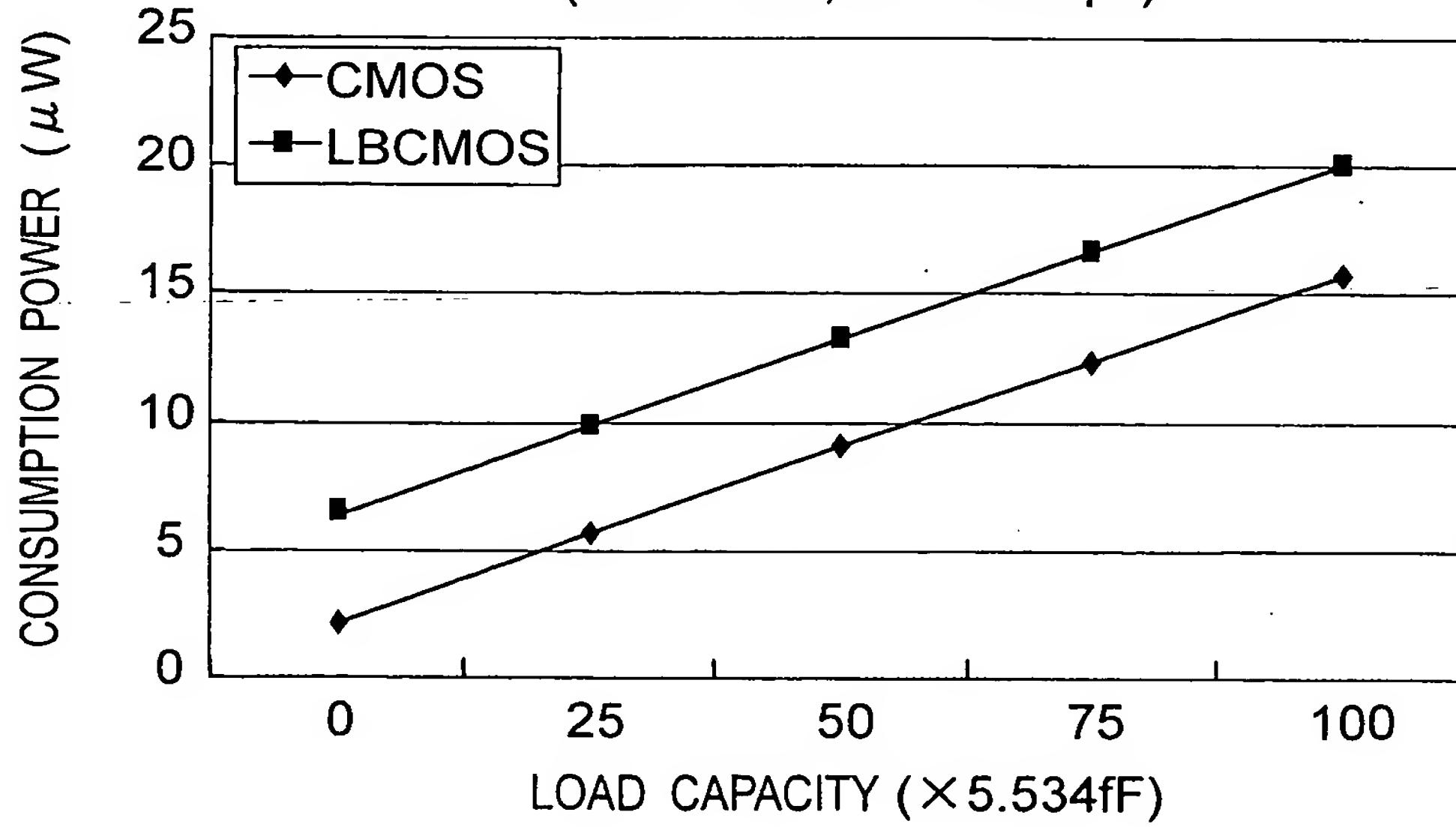


Fig.31A

ENERGY IN LBCMOS INVERTER DUE TO GATE VOLTAGE CONTROL
(Vdd=1.0V, Th=Ti=700ps)

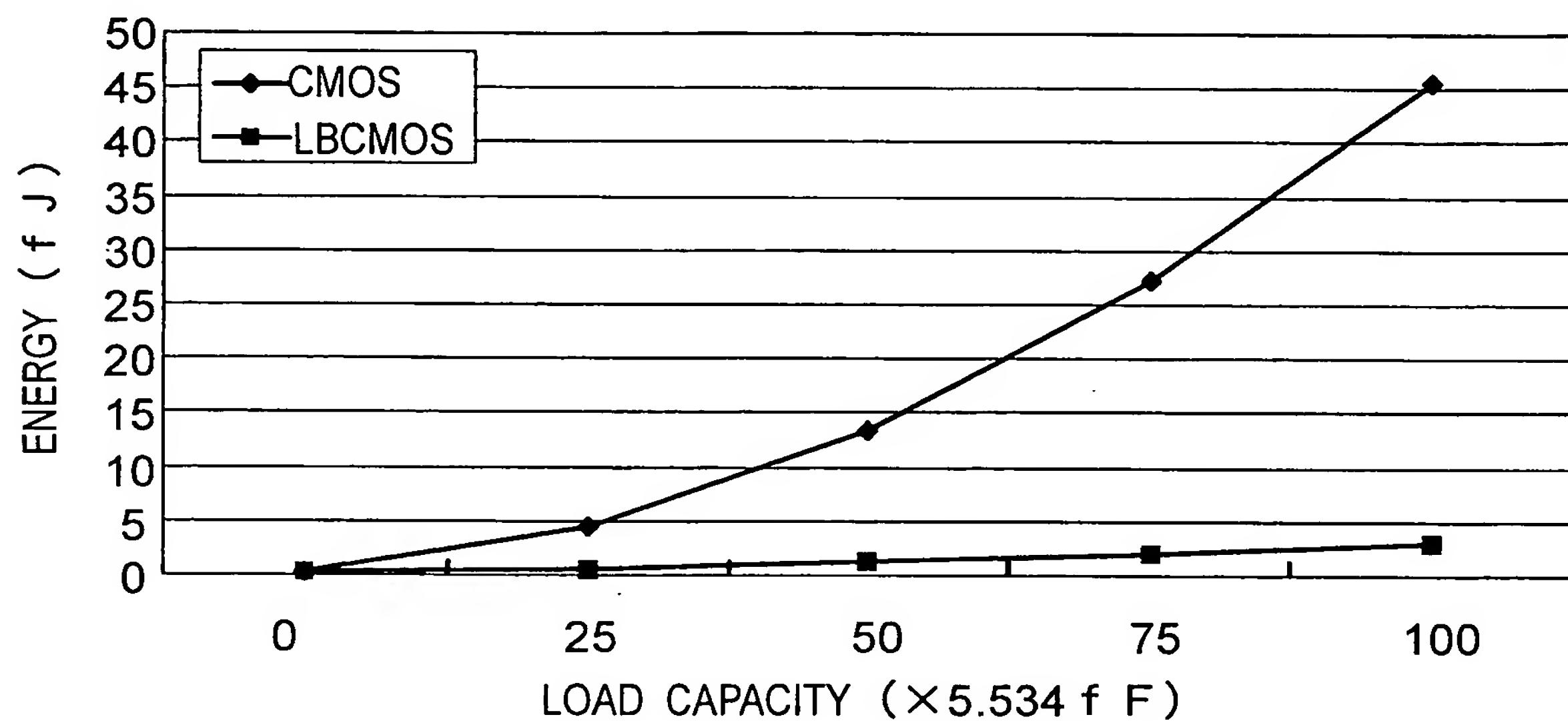
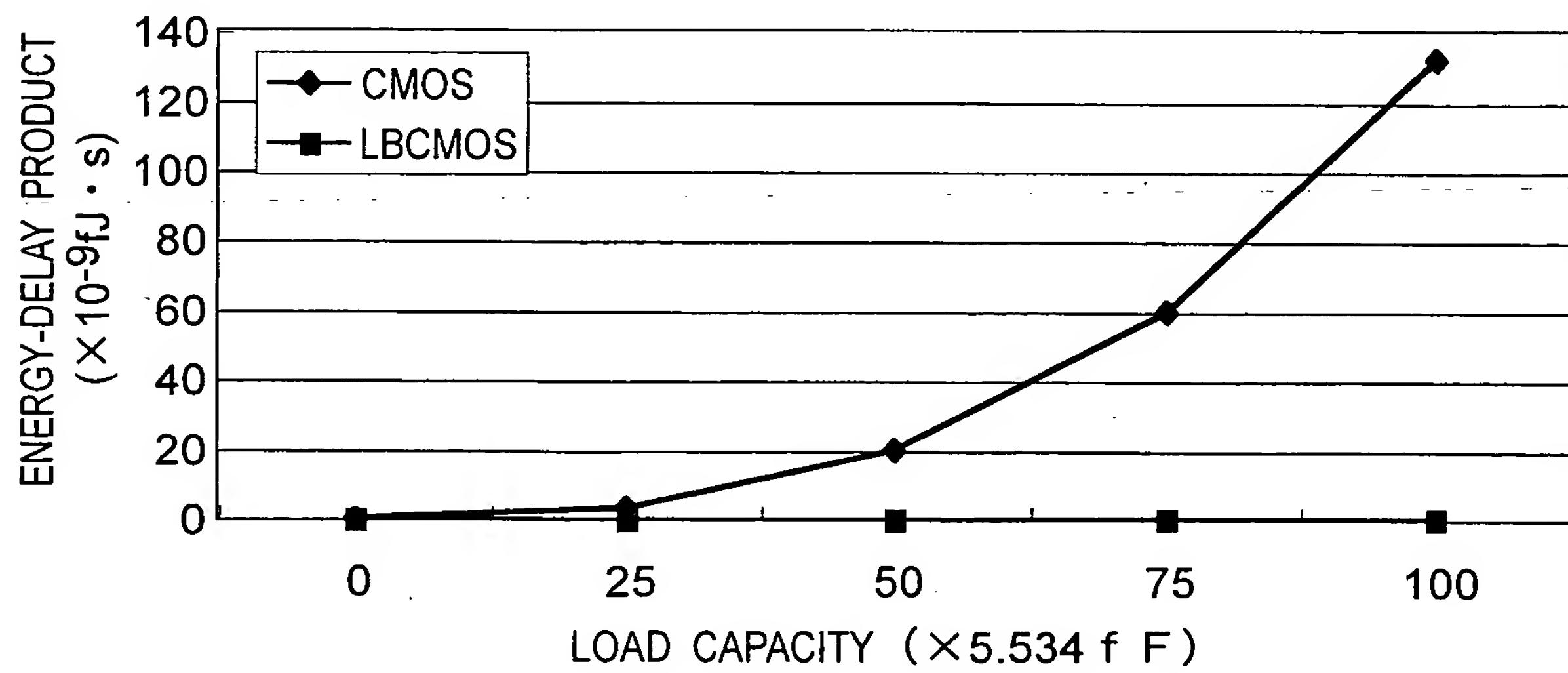


Fig.31B

ENERGY-DELAY PRODUCT IN LBCMOS INVERTER DUE TO GATE VOLTAGE
(Vdd=1.0V, Th=Ti=700ps)



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Fig.32A

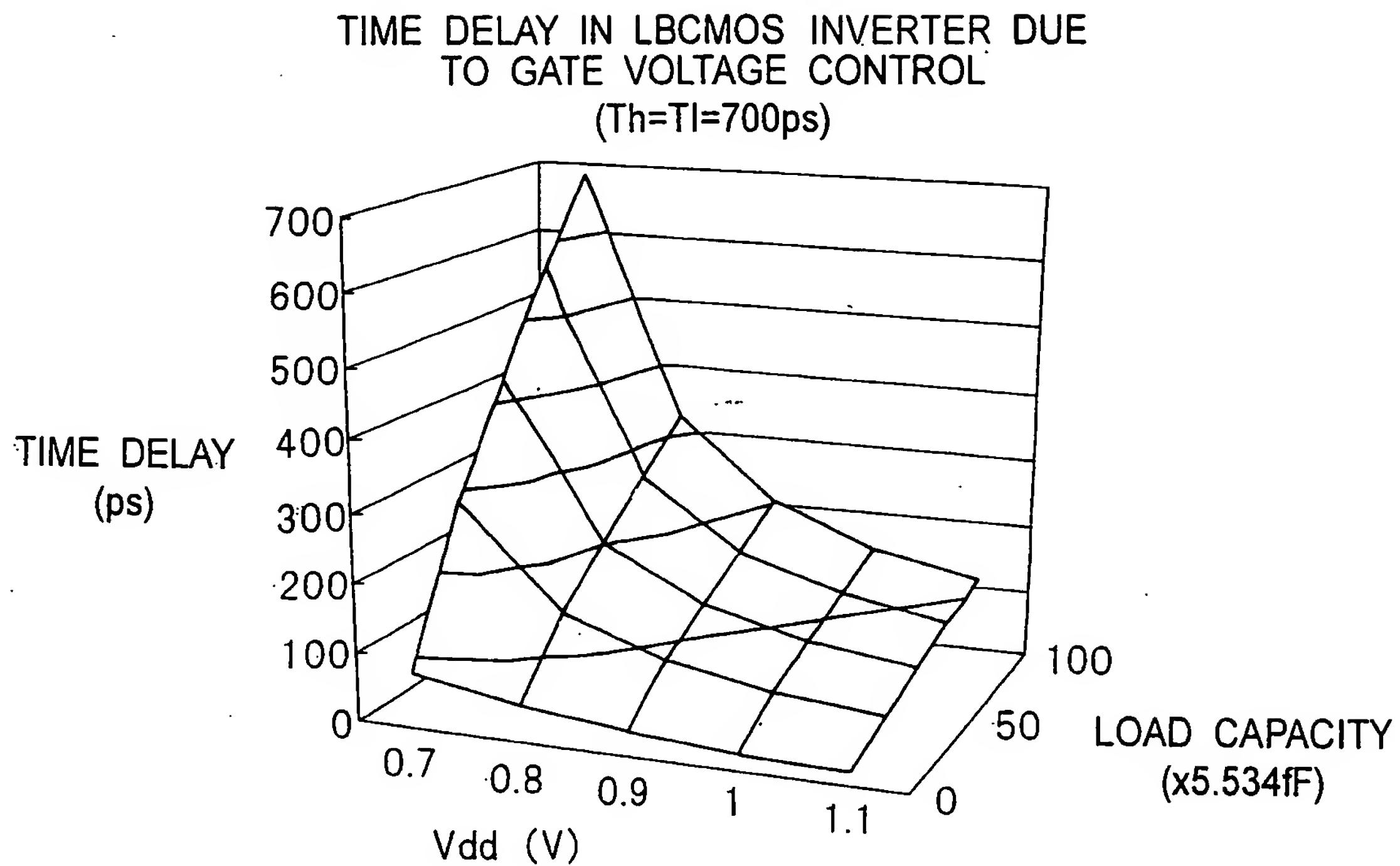
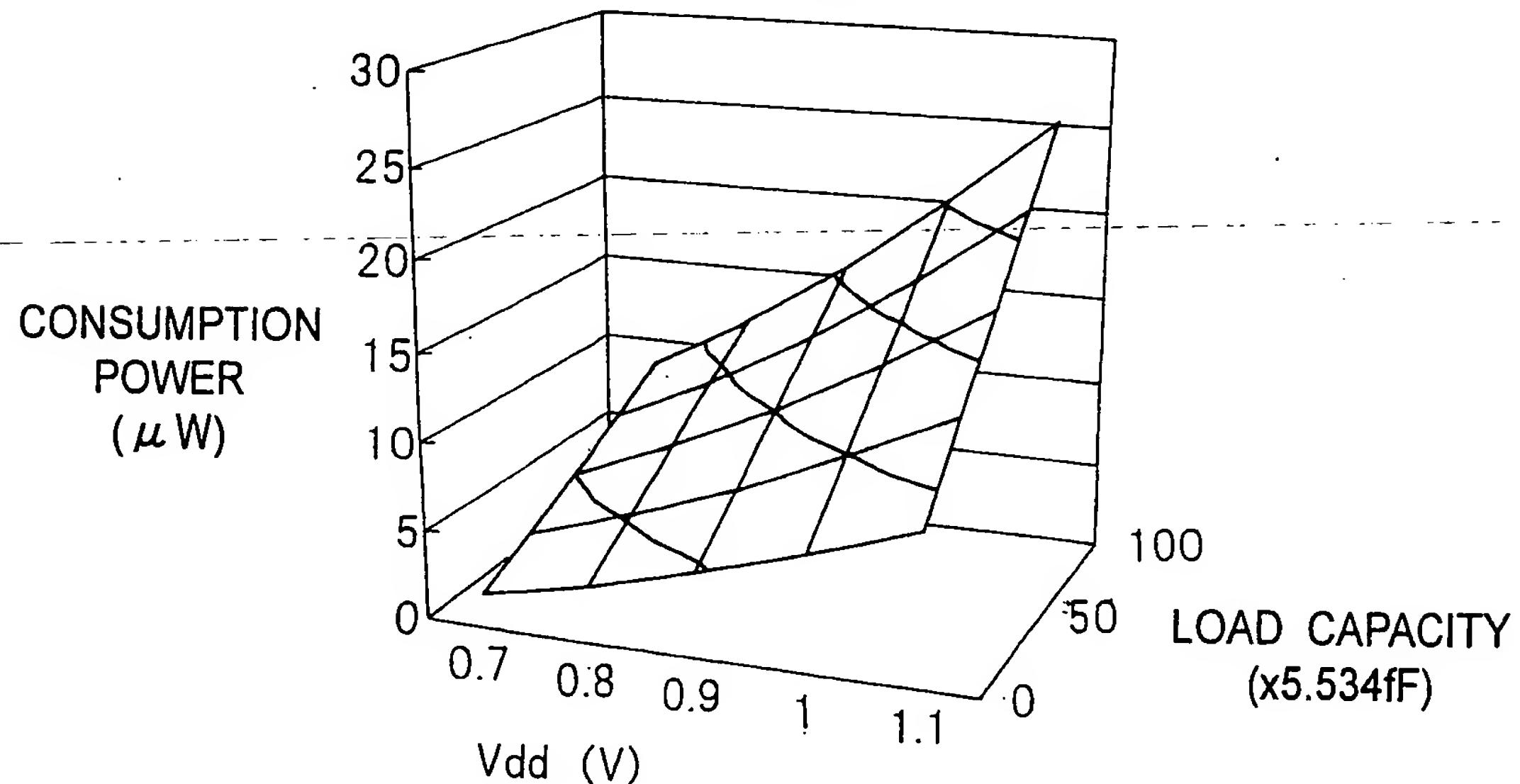


Fig.32B

CONSUMPTION POWER IN LBCMOS
INVERTER DUE TO GATE VOLTAGE CONTROL
($T_h = T_l = 700\text{ps}$)



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Fig. 33A

ENERGY IN LBCMOS INVERTER DUE
TO GATE VOLTAGE CONTROL
($T_h = T_l = 700\text{ps}$)

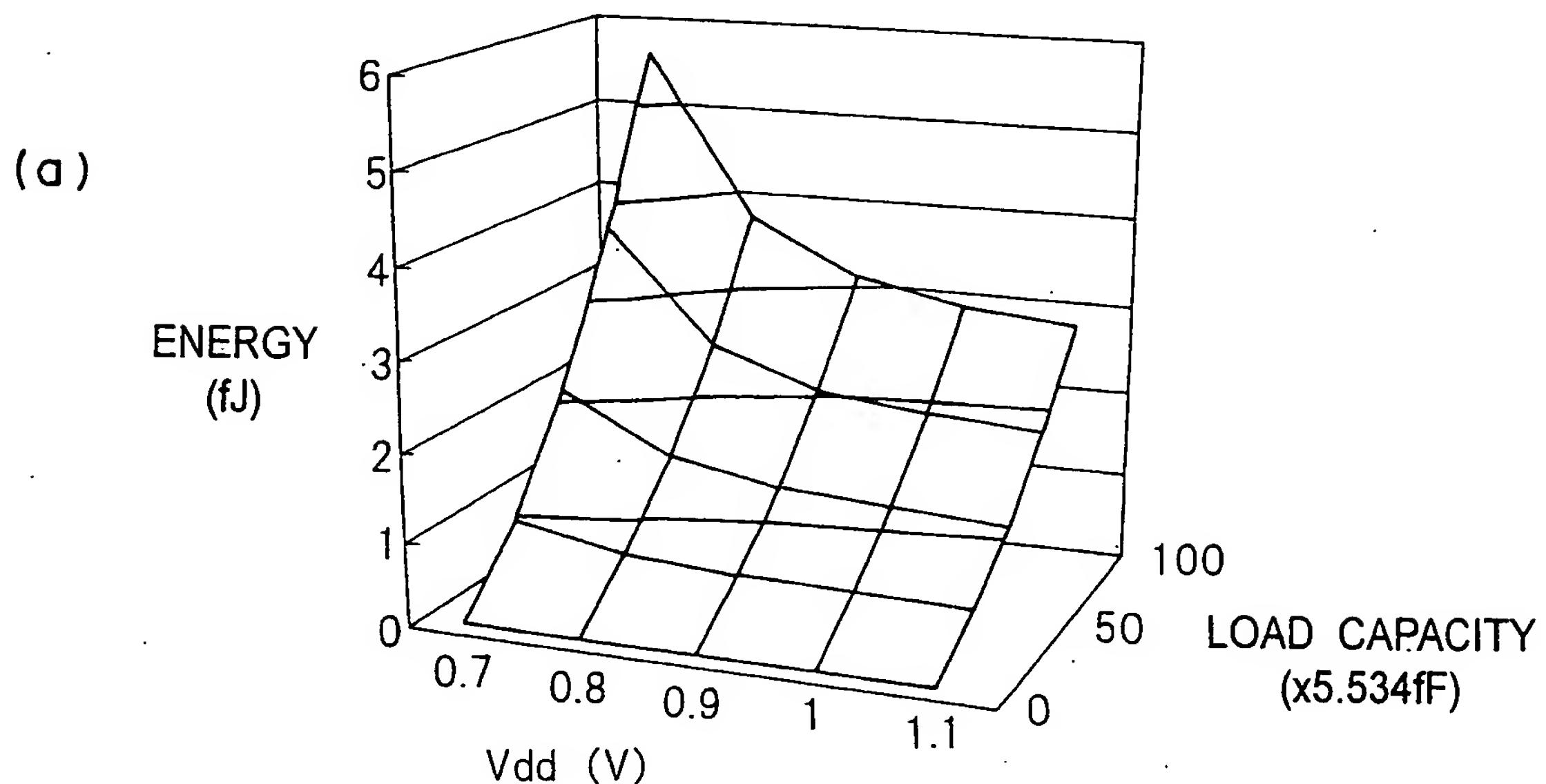


Fig. 33B

ENERGY-DELAY PRODUCT IN LBCMOS
INVERTER DUE TO GATE VOLTAGE CONTROL
($T_h = T_l = 700\text{ps}$)

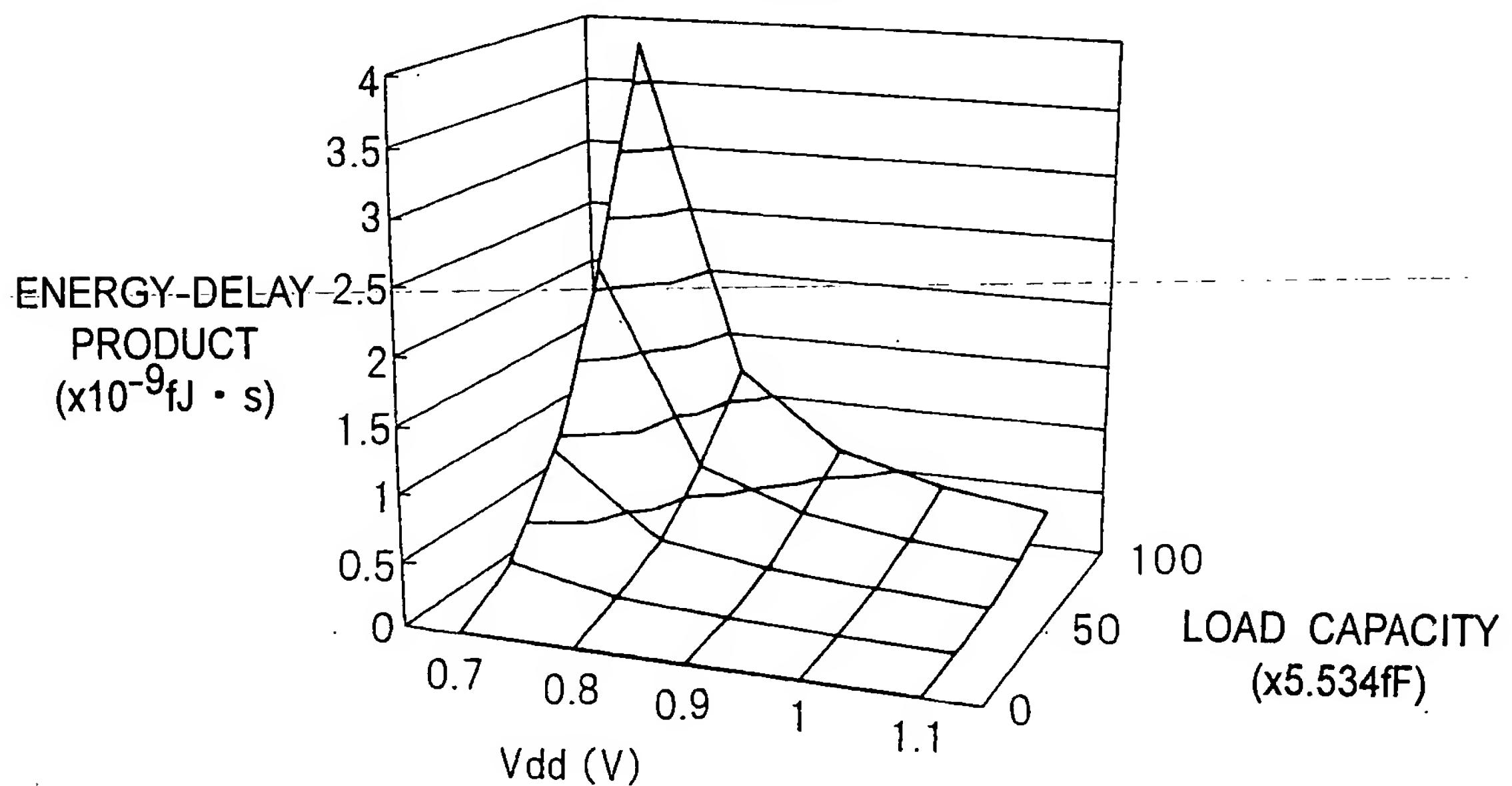


Fig. 34A

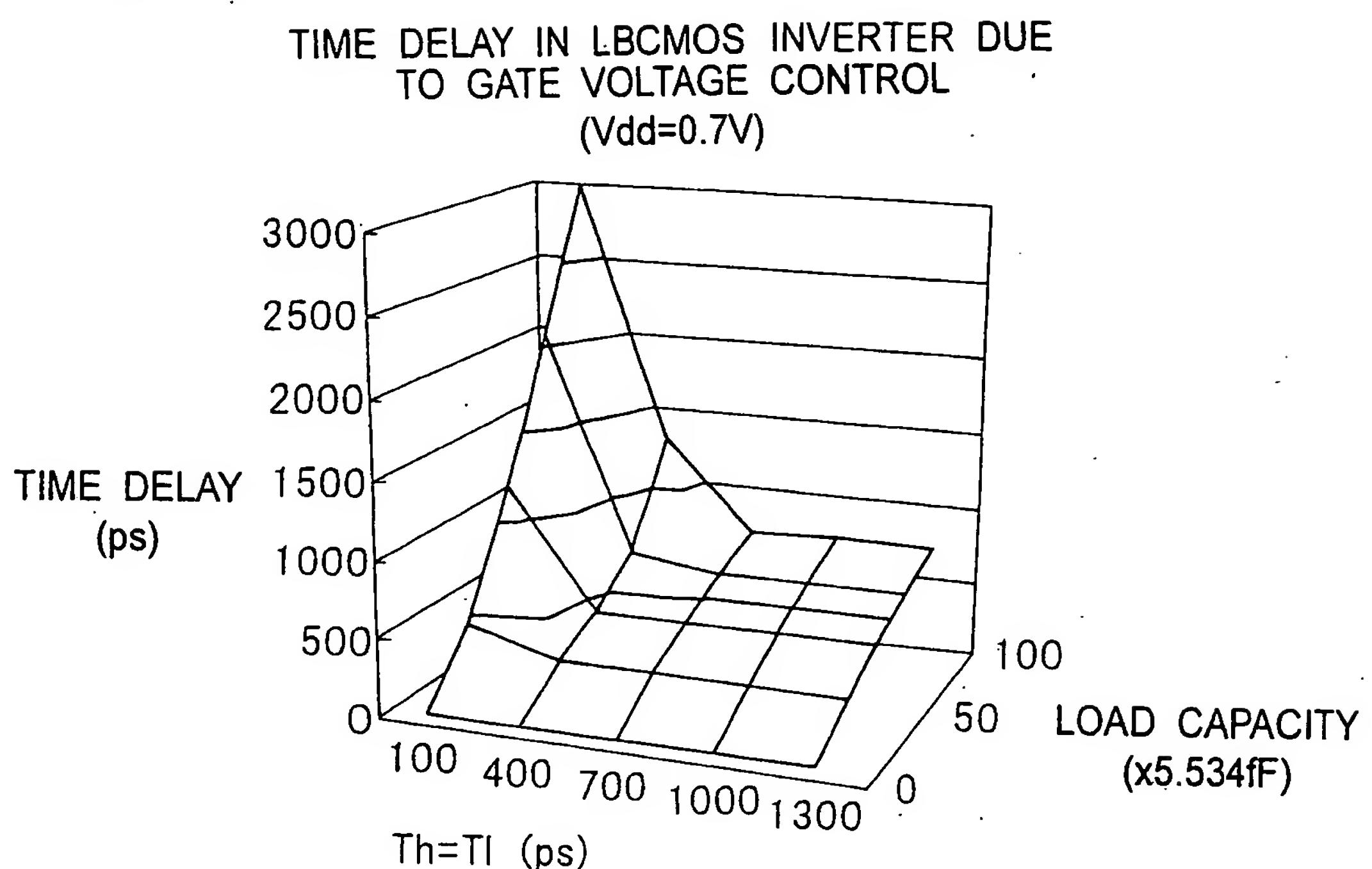
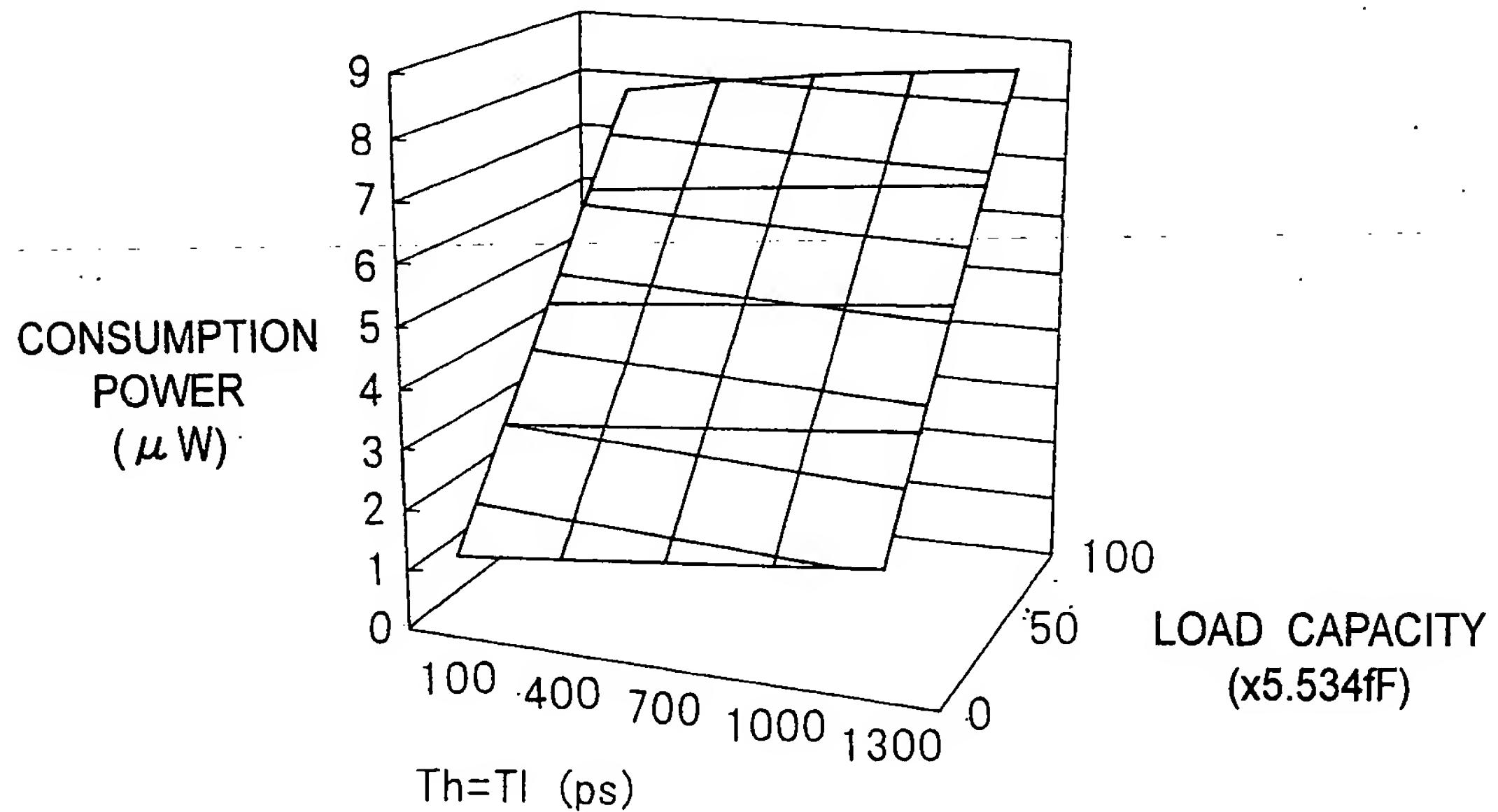


Fig. 34B

CONSUMPTION POWER IN LBCMOS
INVERTER DUE TO GATE VOLTAGE CONTROL
(V_{dd}=0.7V)

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Fig. 35A

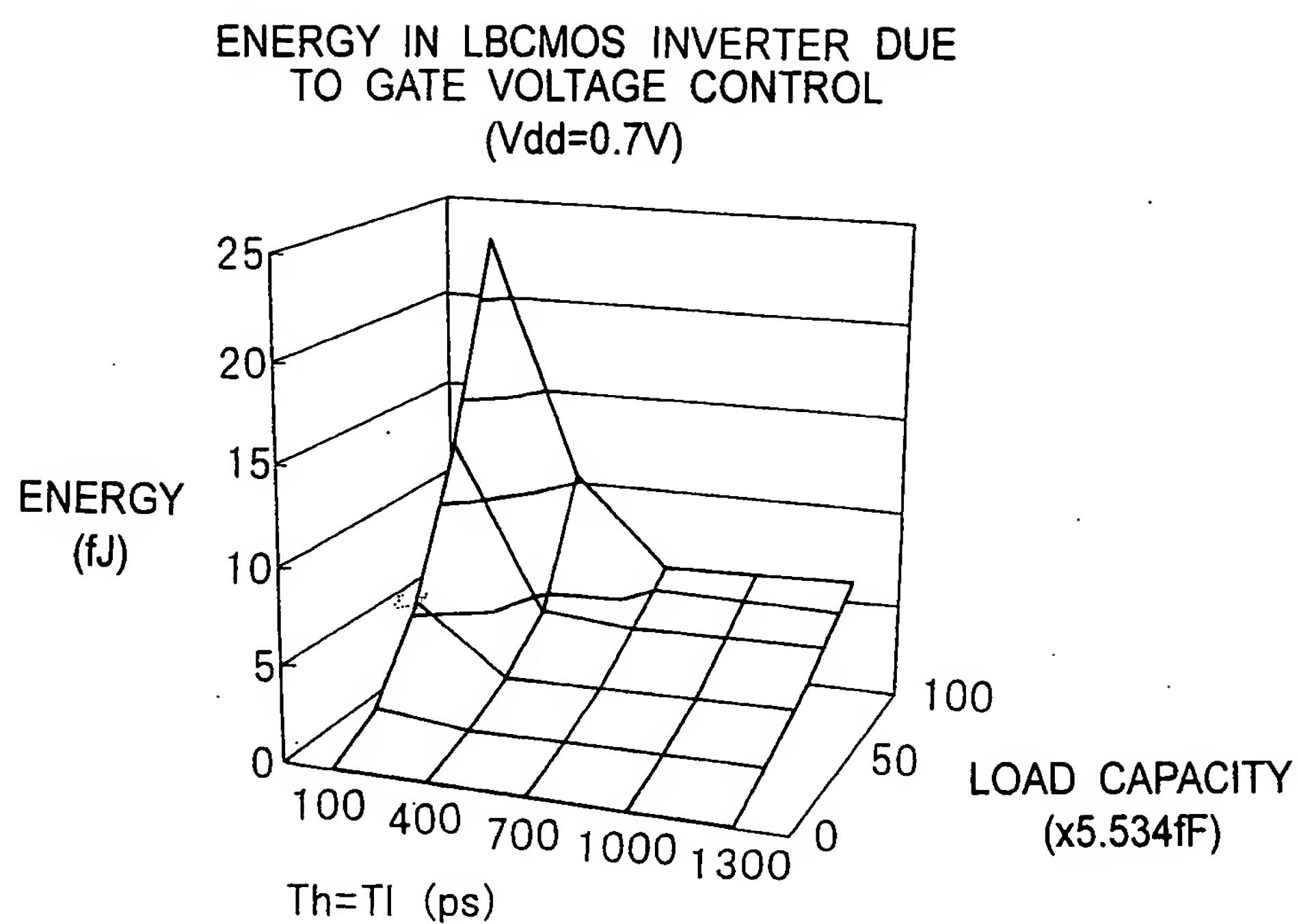


Fig. 35B

